



UNITED STATES GYPSUM construction selector

This construction selector summarizes the many effective systems that can be constructed with United States Gypsum quality-tested building products. Complete technical information, organized for efficiency of use, is presented *according to the end result desired by the architect*. It serves as a general guide for initial comparison and selection of systems and as an index to the various system and product folders providing more complete data.

partitions & walls
ceilings & floors
roof assemblies
fireproofing

contents—U.S.G. technical information

This 20-page Selector is the first element, and the key reference index, in the U.S.G. Architectural Technical Literature series. Following is the sequence of other folders comprising the complete series. Folders marked "S" appear in the consolidated U.S.G. section in Sweet's 1971 Architectural File, Sec. 9.5. Those marked "O" appear elsewhere in Sweet's files. The blue numeral before each folder indicates the AIA-CSI Division classification. Copies of all folders listed are available through U.S.G. representatives or by mail (In Sweet's, see Literature Directory following this Selector).

Partition Systems

- | | | | |
|-------|---|--------|---------------------------------------|
| 9 | Solid Gypsum/Metal Lath-Plaster.....a-1031 | 9 (S) | Metal Studs-Gypsum Drywall.....a-1201 |
| 9 | Solid & Semi-Solid Gypsum Drywall.....a-1070 | 10 (S) | Drywall Demountable.....a-1281 |
| 9 (S) | Shaft Wall.....a-1081 | 10 (S) | VAUGHAN WALLS† Drywall.....a-1291 |
| 9 (S) | Veneer Plaster-Incombust. Constr.....a-1141 | 10 (S) | ULTRAWALL* Movable.....a-1301 |
| 9 (S) | TRUSSTEEL* Studs-Veneer Plaster.....a-1151 | 9 (S) | Veneer Plaster-Wood.....a-1331 |
| 9 (S) | Gypsum Tile-Plaster-Direct & Resilient...a-1161 | 9 | Metal Lath-Wood.....a-1350 |
| 9 | TRUSSTEEL Studs-Metal Lath.....a-1171 | 9 | Gypsum Lath-Wood.....a-1360 |
| 9 (S) | TRUSSTEEL Studs-Gypsum Lath.....a-1181 | 9 | Drywall 1 & 2-Layer-Wood.....a-1391 |
| 9 | Metal Studs-Gypsum Lath.....a-1191 | 9 (S) | Drywall Resilient-Wood.....a-1401 |

Ceiling & Floor Systems—Air Distribution—Radiant Heating

- | | | | |
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| 9 (S) | Gypsum Drywall-Wood.....b-1451 | 9 | Plaster Cable Heating.....b-1510 |
| 9 | Gypsum Lath-BRACE-TITE*.....b-1460 | 9 | AURATONE* Panel Suspensions.....b-1541 |
| 9 (S) | Veneer Plaster-Metal Channels.....b-1471 | 9 | ACOUSTONE* Tile Suspensions.....b-1551 |
| 9 | Metal Lath-Plaster-Furred or Susp.....b-1480 | 13 | AIRSON* Air Distribution.....b-1561 |
| 9 (S) | Drywall-Metal Channels.....b-1491 | 3 | Gypsum Floor Plank.....b-1601 |

(Also see Partition folders for related ceiling systems)

Roof Assemblies

- | | | | |
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| 3 (O) | Gypsum Concrete Roof Systems.....c-1641 | 3 (O) | Metal Edge Gypsum Roof Plank.....c-1651 |
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Structural Fireproofing Systems

- | | | | |
|---|---|-------|--|
| 9 | Metal Lath & Plaster Fireproofing.....d-1700 | 4 (S) | Gypsum Tile Fireproofing.....d-1721 |
| 9 | Gypsum Lath & Plaster Fireproofing.....d-1710 | 9 (S) | Gypsum Drywall Fireproofing.....d-1731 |

Exterior Walls & Furring Systems

- | | | | |
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| 9 (S) | Drywall-Metal Channels.....e-1771 | 8 (S) | Exterior Curtain Walls.....e-1821 |
| 9 | Drywall-Rigid Foam Insulation.....e-1781 | | |

(Also see Partition folders for related wall furring systems)

Building Product Catalogs

- | | | | |
|-------|--|-------|-------------------------------------|
| 9 (S) | Gypsum Plasters.....f-1851 | 9 (S) | Paint Products.....f-1911 |
| 9 (S) | Plaster Bases & Accessories.....f-1861 | 9 (O) | Sound Control Products.....f-1921 |
| 9 (S) | Wallboards & Accessories.....f-1871 | 7 | Asphalt Roofing Products.....f-1931 |
| 9 | Drywall Joint Treatment.....f-1881 | 4 | Lime for Masonry Mortars.....f-1940 |
| 6 | Sheathing-Gypsum & Insulating.....f-1891 | 7 | CONCORDE Shingles.....f-1961 |
| 7 (O) | Insulating Wool Products.....f-1901 | | |

Industrial Product Catalogs

- | | | | |
|-------|---|--------|--|
| 5 (O) | Exp. Metals for Architecture.....IS-141 | 15 (O) | GLOBE-STRUT* Channel Framing.....G-516 |
| 5 (O) | GRATE-X* Gratings.....IS-15 | 16 (O) | CABLE STRUT* Tray Systems.....G-517 |
| 5 (O) | GRIP STRUT* Gratings.....G-515 | 7 (O) | Industrial Insulation.....IW-119 |

Numbering System: the System Folders and Building Product Catalogs are arranged in numerical sequence, as listed above. Those bearing a "1" as the last digit of the title number are new 1971 folders replacing any previous edition bearing the same first three digits. Folders with title numbers ending in "0" which have not been replaced were published in 1970 but are still current and unchanged. All Industrial Product Catalogs have their own numbering system and are new 1970 editions.

index—products and systems

(References listed are *principal source* of information in U.S.G. Architectural Technical Literature series—repetition or additional data may occur in other folders)

product or system	folder reference	product or system	folder reference	product or system	folder reference
A					
Acoustical plaster.....	f-1851	Grating, expanded metal.....	is-15	Paint products.....	f-1911
Acoustical space units.....	f-1921	Grating, reticulated metal.....	g-515	Plaster bases.....	f-1861
Acoustical tile, panels.....	f-1921	Gypsum backing board.....	f-1871	Plaster ceilings.....	a-1350, a-1360, b-1460, b-1471, b-1480, b-1510
Adhesives, drywall.....	f-1871	Gypsum concrete roof deck.....	c-1641	Plaster furring systems.....	a-1031, a-1141, a-1151, a-1161, a-1171, a-1181, a-1191, a-1360
Air distribution grids.....	b-1561, f-1921	Gypsum coreboard.....	f-1871	Plaster partitions, laminated.....	a-1141
Air distribution systems.....	b-1561	Gypsum drainage slope fill.....	c-1641	Plaster partitions, metal framed.....	a-1031 a-1141, a-1151, a-1171, a-1181, a-1191
Aluminum trim.....	a-1281, a-1291, a-1301, f-1871	Gypsum floor plank.....	b-1601	Plaster partitions, wood framed.....	a-1331, a-1350, a-1360
Asphalt roofing shingles.....	f-1931	Gypsum lath ceilings.....	a-1360, b-1460, b-1471, b-1510	Plastering lime.....	f-1851
B					
Back-blocking system.....	b-1451	Gypsum lath fireproofing.....	d-1710	Plasters—basecoat, finish.....	f-1851
Block filler.....	f-1911	Gypsum lath partitions.....	a-1031, a-1141, a-1161, a-1181, a-1191, a-1360	Plastic trim.....	f-1861, f-1871
Blowing wool.....	f-1901	Gypsum partition tile.....	f-1861	Pre-finished gypsum wallboard.....	f-1871
C					
Cable trays.....	g-517	Gypsum plaster base.....	f-1861	Primers & undercoat.....	f-1911
Caged beam construction.....	b-1471, b-1480, b-1491	Gypsum roof plank.....	c-1651	R	
Ceiling board, metal accessories.....	f-1921	Gypsum studs, ribs.....	f-1871	Radiant heat ceilings.....	b-1451, b-1510
Ceiling grid systems.....	b-1541, b-1561	Gypsum tile fireproofing.....	d-1721	Resilient ceilings.....	a-1331, b-1451, b-1510
Ceiling heat systems.....	b-1451, b-1510, b-1561	Gypsum tile partitions.....	a-1161	Resilient partitions.....	a-1151, a-1161, a-1171, a-1181, a-1331, a-1350, a-1360, a-1401
Channel framing.....	g-516	Gypsum wallboard.....	f-1871	Rigid foam wall furring.....	a-1141, e-1781
Channels, furring & lathing.....	f-1861, f-1871	I		Roofing, shingles & built-up.....	f-1931
Channels, resilient.....	a-1401, b-1451, f-1871	Insulating blocks, high temp.....	iw-119	S	
Chase walls.....	a-1031, a-1070, a-1081, a-1141, a-1161, a-1171, a-1181, a-1191, a-1201, a-1291	Insulating wool.....	f-1901	Screws, gypsum board.....	f-1861, f-1871
Concrete finishing compound.....	f-1851, f-1881	Insulation, industrial.....	iw-119	Sealer, spray compound.....	f-1911
Control joints.....	f-1861, f-1871	Insulation, perimeter.....	f-1901	Seismic roof construction.....	c-1641
Corner, casing beads.....	f-1861, f-1871	J		Semi-solid partitions.....	a-1070, a-1291
Corner reinforcement.....	f-1861, f-1871	Joint treatment.....	f-1881	Shaft wall partitions.....	a-1081
Curtain walls.....	e-1821	L		Sheathing, gypsum.....	f-1891
D					
Drywall ceilings.....	b-1451, b-1491	Laminated coreboard.....	f-1861, f-1871	Sheathing, insulating.....	f-1891
Drywall fireproofing.....	d-1731	Lathing accessories.....	f-1861	Shingles, mineral sidewall.....	f-1961
Drywall furring systems.....	e-1771, e-1781	Lathing clips.....	f-1861	Solid drywall partitions.....	a-1070, a-1291
Drywall partitions, laminated.....	a-1070, a-1081, a-1201, a-1291, a-1391	Light fixture protection.....	f-1921	Solid plaster partitions.....	a-1031, a-1141
Drywall partitions, metal framed.....	a-1201, a-1281, a-1301	M		Sound attenuation blankets.....	f-1901
Drywall partitions, wood framed.....	a-1391, a-1401	Mansard roof shingles.....	f-1961	Sound deadening board.....	f-1871
E					
Epoxy coatings.....	f-1911	Masonry partitions.....	a-1161	Stains, wood.....	f-1911
Expanded metal.....	is-141	Mason's lime.....	f-1940	Stair treads.....	g-515, is-15
F					
Fascia, expanded metal.....	is-141	Metal base.....	f-1861	Stucco.....	e-1821, f-1851
Finishing lime.....	f-1851	Metal lath & accessories.....	f-1861	T	
Floating angle constr.....	a-1331, a-1360, a-1391	Metal lath ceilings.....	a-1350, b-1480	Tape, reinforcing.....	f-1861, f-1881
Floor underlayment compound.....	b-1601	Metal lath fireproofing.....	d-1700	Texture paint finishes.....	f-1911
Flooring, gypsum plank.....	b-1601	Metal lath partitions.....	a-1031, a-1161, a-1171, a-1350	V	
Flooring, open steel.....	g-515, is-15	Metal pan acoustical units.....	f-1921	Varnishes.....	f-1911
Formboard, gypsum roof decks.....	c-1641	Metal stud partitions.....	a-1141, a-1151, a-1171, a-1181, a-1191, a-1201	Veneer plaster systems.....	a-1141, a-1151, a-1331, b-1471, d-1710, d-1721
G					
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how to use the Selector

This folder is divided into six sections—A to F—covering the categories indicated below. Within each section are listed brief analyses of major variations of each system, as documented by fire or sound tests, federal specifications or ASTM designations. They are arranged sequentially according to fire ratings—the criterion that most often governs selection.

These analyses are organized to locate the criteria desired at a glance. In Sections A and B, covering partitions and ceilings, all information appears under eight column headings as follows:

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			

In sections C, D and E—roof assemblies, fireproofing and exterior walls—certain of these columns are not applicable and are omitted.

The analyses applicable to each system, as listed here in all six sections of the Selector, are repeated in the individual folder covering that system, indicated by number in the "Folder Reference" column. Full information, details and specifications on the selected constructions also are available in the folders.

a partitions—pages 5 to 10—include solid and laminated without studs, metal and wood-framed, and movable—in plaster and lath, drywall and gypsum tile.

b ceilings—pages 11 to 16—include suspended, furred and direct-attachment types, employing plaster and lath, drywall, and mineral fiber tile or panel surfaces with companion floor or roof construction. Air distribution and radiant heating systems also are offered.

c roof assemblies—page 16—listed are poured gypsum decks, and the prefabricated gypsum plank type, both available with integral ceilings.

d structural fireproofing—page 17—shows basic methods of protecting columns and beams with metal lath and plaster, gypsum lath and plaster, gypsum tile, and gypsum drywall.

e exterior walls and furring—page 18—compares methods of furring exterior walls, including veneer plaster and drywall furring systems, and exterior curtain wall assemblies.

f product catalogs—listed and indexed on page 19—present complete data on components and accessories used in U.S.G. construction systems. Subjects: gypsum plasters, plaster bases, gypsum wallboard and vinyl-faced panels, joint treatment, sheathing, insulating wool, paint products, sound control products, asphalt roofing, mason's lime, and mineral shingles for sidewalls and mansard roofs.

Federal specification and ASTM designation qualifications of U.S.G. products are listed here on page 19.

relative cost data

The "Relative Cost Index" in following test analyses provide an approximate relation of similar assemblies to one another. For example, a partition with a cost index of 168 should cost approximately 32% more than a partition with a cost index of 125. There is no basis for relating a partition construction to a ceiling assembly, column fireproofing or roof assembly.

Cost data for final consideration or budget purposes should be obtained by the architect in his own immediate market, on the project under construction.

abbreviations

In the test analyses following, the abbreviation "est" in the Fire and Sound Rating columns indicates *estimated*; the abbreviation *N/A* indicates *not applicable* or *not available*. Other abbreviations are classified by columns where they appear:

Description and Comments

acoust	acoustical	htg	heating
adj	adjacent	incomb	incombustible
alt	alternate	ins	insulating
alum	aluminum	install	installation
appl	applied	int	interior
att	attached	lamin	laminated
atten	attenuation	mach	machine
betw	between	max	maximum
bd	board	met	metal
blkts	blankets	min	mineral or minimum
blt	built	mov	movable
bvld	beveled	nom	nominal
cell	cellular	o.c.	on center
cem	cement	opp	opposite
chan	channel	oz	ounce
clg	ceiling	partn	partition
col	column	pcs	pieces
com	common	perf	perforated
compd	compound	perim	perimeter
conc	concrete	pl	plaster
constr	construction	plywd	plywood
contin	continuous	prot	protected or protection
corebd	coreboard	qtr	quarter
corrug	corrugated	recom	recommended
cov	covered	reinf	reinforcement
cr	cold rolled	resil	resilient
ctd	coated	run	runner(s)
dbl	double	sec	section
dead	deadening	sep	separate
dens	density	separ	separated
diag	diagonal	sf	self furring
dir	direct	sheathg	sheathing
distr	distribution	slot	slotted
dm	diamond mesh	sm	smooth
ea	each	spec	special
elect	electrical	sq	square
excl	excluding	stag	staggered
exp	exposed	stl	steel
ext	exterior	susp	suspended
fab	fabric	syst	system
fed spec	federal specifications	surf	surface
fin	finish or finished	td	tied
fireprfg	fireproofing	text	texture
fixt	fixture	thickn	thickness
fir	floor	treat	treatment
formbd	formboard	unexp	unexposed
fur	furring	unfin	unfinished
ga	gauge	vert	vertically
galv	galvanized	wallbd	wallboard
hex	hexagonal	wd	wood
hol	hollow	wf	wide flange
horiz	horizontally	wt	weight (lbs./sq. ft.)

Plaster mixes are given by weight in lbs., aggregates by volume in cu. ft.

Test No.

incomb	incombustible	MLA	Metal Lath Association
Des	Design	NBFU	Natl. Bd. Fire Underwriters
GA	Gypsum Association	ASTM	Amer. Soc. Testing Materials
IBI	Insulation Board Institute	USG	United States Gypsum

The recognized laboratories which performed the tests are noted by abbreviation as follows:

Fire (f)	Sound (s)
BMS—National Bureau of Standards	NBS—National Bureau of Standards
UL—Underwriters' Laboratories, Inc.	TL—Riverbank Acoustical Laboratories
OSU—Ohio State University	G & H—Geiger & Hamme
FPRI—Fire Protection Research Institute	CK—Cedar Knolls Acoust. Laboratories
U of C—University of California	WEAL—Western Electro-Acoust. Lab.
	BBN—Bolt, Beranek and Newman

Reports of tests listed here may be requested by number from United States Gypsum, Architectural Services Dept., 101 S. Wacker Dr., Chicago 60606.

Sound Rating

stc	sound transmission class	9-f	9-frequency average
11-f	11-frequency stc	11C	impact insulation class
16-f	16-frequency stc	db	decibel

selector guide to sound-rated partitions

STC range	55-60	50-54	45-49	40-44	35-39
drywall assemblies	13, 14, 22, 23, 30, 72	15, 16, 24, 25, 28, 32, 73, 87, 88, 96	17, 26, 33, 74, 75, 82, 83, 89, 90, 91	76, 77, 81, 97, 98	21, 78, 84, 85, 86, 92
plaster assemblies	4, 94	5, 6, 34, 38, 39, 48, 63, 66, 95	7, 49, 50, 51, 52, 53, 55, 67	1, 9, 54, 56, 57, 68, 69, 70	58, 60, 61, 71

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			

4-hour rated partitions

PLASTERED ASSEMBLIES

MASONRY TYPE

4 hrs.	Gypsum Tile & Plaster—4" hol PYROBAR tile— $\frac{3}{8}$ " 100:3 gypsum sand plaster wt 26 width $5\frac{1}{4}$ "	T-118-35&36-OSU (f) NBS-305 F44 (s)	42		159	Excellent fire protection—good plaster base	a-1161
4 hrs.	Gypsum Tile & Plaster—6" hol PYROBAR tile— $\frac{3}{8}$ " 100:3 gypsum sand plaster one side only wt 28 width $6\frac{3}{4}$ "	T-26-1-OSU (f)	N/A		139	Excellent fire protection, low dead load	a-1161

METAL FRAMED TYPE

4 hrs.	Stl Stud—Metal Lath & Plaster—4" TRUSSTEEL studs 16" o.c.—one side 3.4# poly-back dm met lath direct att & $\frac{3}{4}$ " cem lime pl— $3\frac{3}{4}$ " STRUCTO-LITE (Type R) plaster in stud cavity—opp side 3.4# dm met lath & $\frac{3}{4}$ " 100:2-100:3 gypsum sand plaster wt 30 width $5\frac{1}{2}$ "	UL Des 13-4 hr (f)	N/A		500	Suitable for smoke tower construction	a-1171
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3-hour rated partitions

PLASTERED ASSEMBLIES

MASONRY TYPE

3 hrs. est	Gypsum Tile & Plaster—3" hol PYROBAR—2x2 wd fur 16" o.c. vert— $1\frac{1}{2}$ " THERMAFIBER sound atten blkts betw fur—R-5 resil clips att to wd fur— $\frac{3}{8}$ " ROCKLATH pl base— $\frac{1}{2}$ " gypsum sand plaster one side & opp side $\frac{3}{8}$ " direct—perimeter caulked wt 22.5 width $6\frac{1}{2}$ "	USG-123-FT-G&H (s) Field Test KSO-1090072-f (s)	55	51	202	Excellent sound & fire resistance. No outlets in 123-FT test; two caulked outlets in field test	a-1161
3 hrs. est	Gypsum Tile & Plaster—4" hol PYROBAR—R-5 resil clips— $\frac{3}{8}$ " ROCKLATH pl base— $\frac{1}{2}$ " gypsum sand plaster one side & opp side $\frac{3}{8}$ " direct—perimeter caulked wt 27 width 6"	USG-110-FT-G&H (s) Field Test KSO-1090072-e (s)	50	47	178	Good attenuation. No outlets in 110-FT; two caulked outlets in field test	a-1161
3 hrs. est	Gypsum Tile & Plaster—3" hol PYROBAR—R-5 resil clips— $\frac{3}{8}$ " ROCKLATH pl base— $\frac{1}{2}$ " gypsum sand plaster one side & opp side $\frac{3}{8}$ " direct wt 24 width 5"	TL-60-127 (s)	52		178	Excellent fire resistance—reduces sound leaks & flanking paths	a-1161
3 hrs. est	Gypsum Tile & Plaster—3" hol PYROBAR—#500 resil clips— $\frac{3}{4}$ " cr chan & 3.4# dm met lath— $\frac{3}{4}$ " gypsum sand plaster one side & opp side $\frac{3}{8}$ " direct wt 25 width $5\frac{1}{4}$ "	NBS-313 (s)	46		195		a-1161
3 hrs.	Gypsum Tile & Plaster—4" hol PYROBAR tile— $\frac{3}{8}$ " 100:3 gypsum sand plaster one side only wt 20 width 4"	T-118-29&30-OSU (f)	N/A		124		a-1161
3 hrs.	Gypsum Tile & Plaster—3" hol PYROBAR— $\frac{3}{8}$ " 100:3 gypsum sand plaster wt 23 width $4\frac{1}{4}$ "	T-26-5-OSU (f) NBS-309 (s)	40		154	Incombustible—good plaster base	a-1161
3 hrs.	Gypsum Tile—3" solid PYROBAR—unplastered wt 16 width 3"	T-26-3-OSU (f)			91	Excellent fire protection for weight & cost	a-1161
3 hrs.	Gypsum Tile & Plaster—3" hol PYROBAR— $\frac{3}{8}$ " 100:3 gypsum sand plaster one side only wt 16 width $3\frac{3}{4}$ "	T-1315-OSU (f)			118	Ideal for chase walls, vent & elevator shafts	a-1161

DRYWALL ASSEMBLIES

METAL FRAMED TYPE

3 hrs.	Shaft Wall Gypsum Drywall—2 layers $\frac{5}{8}$ " SHEETROCK gypsum wallbd appl vert one side over 2" USG lamin gypsum corebd set in met J-run—met H-studs 24" o.c.—horiz USG met fur chan 24" o.c. betw wallbd layers—both layers screw att—joints fin wt 14 width $4\frac{3}{4}$ "	T-4423-OSU (f)	N/A		210	Fire rating also applies with IMPERIAL Plaster Base and veneer plaster surface	a-1081
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2-hour rated partitions

DRYWALL ASSEMBLIES

LAMINATED & SOLID TYPES

2 hrs.	Double Solid Drywall— $\frac{1}{2}$ " SHEETROCK gypsum wallbd lamin ea face to two rows of 1" USG gypsum corebd spaced 3" apart— $1\frac{1}{2}$ " THERMAFIBER sound atten blkts stapled to back of one row—stl runners—joints fin—perimeter caulked wt 13 width 6"	UL Des 26-2 hr (f) USG-96-FT-G&H (s) Field Test KSO-109006-c (s)	60	55	165	Fire rating also applies without wool. Outstanding sound isolation at low cost	a-1070
2 hrs. est	Triple Solid Drywall— $\frac{1}{2}$ " SHEETROCK gypsum wallbd—3 rows of 1" USG gypsum corebd ea spaced min $1\frac{1}{8}$ " & $1\frac{1}{2}$ " apart— $1\frac{1}{2}$ " THERMAFIBER sound atten blkts att to back of one outer row—wallbd lamin & screw att to outer rows—stl runners—joints fin—perimeter caulked wt 17 width $6\frac{3}{4}$ "	USG-94-FT-G&H (s)	59		210	Septum improves resistance against sound leaks on job	a-1070

a partitions

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			

2-hour rated partitions

DRYWALL ASSEMBLIES (continued)

LAMINATED & SOLID TYPES (continued)

15	2 hrs. est	Triple Solid Drywall— $\frac{1}{2}$ " SHEETROCK gypsum wallbd—3 rows of 1" USG gypsum corebd ea spaced $\frac{1}{4}$ " apart—wallbd lamin & screw att to outer rows—stl runners—joints fin—perimeter caulked wt 17 width $6\frac{1}{4}$ "	USG-95-FT-G&H (s)	53		195	Among best laminated drywall party walls in 50-54 stc range	a-1070
16	2 hrs.	418 Gypsum Ribwall—2 layers $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd ea side—1"x6" gypsum ribs 24" o.c. lamin betw base layers—wallbd screw att—joints fin wt 12 width $4\frac{1}{4}$ "	UL Des 17-2 hr (f) TL-63-15 (s)	(f) (s)	51	165	Has design flexibility for pipe chase or party walls	a-1070
17	2 hrs.	Double Solid Drywall— $\frac{1}{2}$ " SHEETROCK gypsum wallbd—two rows of 1" USG gypsum corebd spaced $\frac{1}{4}$ " apart—wallbd lamin & screw att ea face—stl runners—joints fin—perimeter caulked wt 13 width $4\frac{1}{4}$ "	T-1310-OSU (f) USG-13-FT-G&H (s)	(f) (s)	46	150	Excellent, versatile—best value in 45-49 stc range	a-1070
18	2 hrs.	Solid Drywall— $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd faces ea side over 1" USG gypsum corebd—face layers lamin—joints stag & fin—met angle runners at flr— $\frac{1}{2}$ " met trim at sidewall/clg wt 8 width 2"	T-1339-OSU (f)	(f)	N/A	120		a-1070
19	2 hrs. est	Solid Drywall— $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd faces ea side over 1" USG gypsum corebd—face layers lamin—joints stag & fin wt 9 width $2\frac{1}{4}$ "	TL-59-58 (s)	(s)	34	124		a-1070
20	2 hrs.	Solid Drywall Vent Shaft— $\frac{3}{8}$ " SHEETROCK FIRECODE gypsum wallbd faces ea side over 1" USG gypsum corebd—face layers lamin & screw att—joints stag & unfin— $\frac{3}{8}$ "x1 $\frac{1}{2}$ " angle runners horiz at flr clg & qtr points wt 9 width $2\frac{1}{4}$ "	UL Des 21-2 hr (f)	(f)	N/A	124		a-1070

METAL FRAMED TYPE

21	2 hrs.	Shaft Wall Gypsum Drywall—2 layers $\frac{1}{2}$ " SHEETROCK gypsum wallbd appl vert one side over 2" USG lamin gypsum corebd set in met J-run—met H-studs 24" o.c.—base layer screw att—face layer lamin & screw att—joints fin wt 14 width 3"	T-4481-OSU (f) TL-68-78 (s)	(f) (s)		38	173	Fire rating also applies with IMPERIAL Plaster surface; sound test based on $\frac{3}{8}$ " thick wallboard	a-1081
22	2 hrs.	Met Stud—2 layers $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd ea side— $2\frac{1}{2}$ " or $3\frac{3}{4}$ " USG studs 24" o.c.—1", $1\frac{1}{2}$ " or 2" THERMAFIBER sound atten bkts stapled—wallbd appl vert & joints stag—base layer screw att—face layer strip lamin or screw att—joints fin—perimeter caulked wt 10 width $4\frac{1}{2}$ "	UL Des 28-2 hr Field Test KSO-109006-a (s) USG-114-FT-G&H (s) CK-654-40 (s)	(f) (s) (s)	55 54	54 53	173	Best value of drywall metal stud party walls in 50-54 stc range. CK-654-40 based on screw-attached face layer	a-1201
23	2 hrs. est	Met Stud Chase Wall—2 layers $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd ea side— $1\frac{1}{2}$ " USG studs 24" o.c. in 2 rows spaced $6\frac{1}{4}$ " apart— $\frac{1}{2}$ " wallbd gussets spanning chase att to studs at qtr points—wallbd appl vert & screw att— $1\frac{1}{2}$ " THERMAFIBER sound atten bkts one side—joints stag & fin—perimeter caulked wt 11 width 12"	USG-134-FT-G&H (s)	(s)	55		189		a-1201
24	2 hrs. est	Met Stud—2 layers $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd ea side—2" USG studs 24" o.c.—wallbd appl vert & screw att— $1\frac{1}{2}$ " THERMAFIBER sound atten bkts—joints fin—perim caulked wt 9 width 4"	TL-69-159 (s) TL-69-155 (s)	(s) (s)	52 45		173	TL-69-155 based on same construction without wool	a-1201
25	2 hrs. est	Met Stud— $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd— $3\frac{3}{4}$ " USG studs 24" o.c.—2 layer—base layer $\frac{1}{2}$ " USG min fiber sound dead bd ea side screw att—wallbd face layer lamin & screw att—joints stag & fin—perimeter caulked wt 8 width $5\frac{1}{2}$ "	USG-103-FT-G&H (s) Field Test KSO-109006-b (s)	(s) (s)	52 50	52	186		a-1201
26	2 hrs.	Met Stud—2 layers $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd plain or vinyl faced vert appl ea side— $3\frac{3}{4}$ " USG studs 24" o.c.—base layer screw att—face layer lamin or screw att—joints fin or unfin—perimeter caulked wt 12 width $6\frac{1}{4}$ "	UL Des 11-2 hr (f) TL-60-113 (s)	(f) (s)		46	157	Excellent for corridors	a-1201
27	2 hrs.	Met Stud—2 layers $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd— $1\frac{1}{2}$ " USG studs 24" o.c.—2 layers ea side vert appl & screw att joints fin wt 9 width $3\frac{3}{4}$ "	U of C 6-15-65 (f)	(f)	N/A		156	Most economical 2-hour metal stud drywall partition	a-1201

MOVABLE TYPE

28	2 hrs.	Mov VAUGHAN WALLS pre-chased dbl sound wall—spec $\frac{5}{8}$ " USG gypsum wallbd face panels lamin to $\frac{3}{8}$ " gypsum core strips placed to form panel joints—2 rows $1\frac{1}{2}$ " thick spaced $1\frac{1}{2}$ " or 3" apart—alum trim wt 13 width $5\frac{1}{4}$ " or 6"	UL Des 24-2 hr (f) TL-65-72 (s) TL-64-189 (s)	(f) (s) (s)		50 45	52 230	250	Ideal for library, conference rooms. 50 stc based on 6" width with wool; 45 stc on $5\frac{1}{4}$ " width without wool	a-1291
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WOOD FRAMED TYPE

29	2 hrs.	Wd Stud—2 layers $\frac{5}{8}$ " SHEETROCK FIRECODE or W/R FIRECODE "C" gypsum wallbd—2x4 16" o.c.—base layer 6d nails 6" o.c.—face layer lamin or nailed to base—joints fin wt 12 width $6\frac{1}{4}$ "	UL Des 4-2 hr (f)	(f)	N/A		161		Basic 2-hour partition construction	a-1391
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partitions

a

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
2 hrs. est	Wd Stud—2 layers ½" SHEETROCK FIRECODE "C" gypsum wallbd ea side—2x4 16" o.c.—3" THERMAFIBER ins wool bkts—RC-1 chan one side spaced 24" o.c.—resil side screw att—opp side nail att—both base layers appl vert and face layers appl horiz—base layers perim caulked—joints fin wt 12 width 6½"	TL-67-239 (s) TL-67-212 (s)		59 49	180 171	Exceptional sound control for party walls. TL-67-212 based on same construction without wool	a-1401
2 hrs.	Wd Stud—2 layers ¾" SHEETROCK FIRECODE "C" gypsum wallbd ea side—2x4 16" o.c.—2" THERMAFIBER ins wool bkts—RC-1 chan one side spaced 24" o.c.—resil side screw att—opp side nail att—both base layers appl vert and face layers appl horiz—base layers perim caulked—joints fin wt 13 width 6½"	T-4799-OSU (f)			187		a-1401
2 hrs. est	Wd Stud—2 layers ¾" SHEETROCK FIRECODE "C" gypsum wallbd—2 rows 2x4 16" o.c. on sep plates 1" apart—base layer att with 6d ctd nails 16" o.c.—face layer att with 7d ctd nails 7" o.c.—perim caulked—joints fin wt 13 width 10¾"	TL-69-214 (s)		51	186		a-1391
2 hrs. est	Stag Wd Stud—2 layers ¾" SHEETROCK FIRECODE "C" gypsum wallbd—2x4 16" o.c. on 2x6 com plate—base layer att with 6d ctd nails 6" o.c.—face layer att with 8d ctd nails 8" o.c.—perim caulked—joints fin wt 13 width 8½"	TL-69-211 (s)		47	182		a-1391

PLASTERED ASSEMBLIES

SOLID TYPE

2 hrs.	Double Solid Gypsum—½" IMPERIAL plaster base & veneer plaster—pl base strip lamin & att with Type G screws to 1" USG gypsum corebd—met angle runners at flr & clg 1½" to 3" apart—2" THERMAFIBER sound atten bkts stapled to corebd one side—½" IMPERIAL plaster—joints taped—perimeter caulked wt 13 width 6¾"	UL Des 26-2 hr (f) Field Test KSO-1090072-d (s)			178	Fire rating also applies without wool	a-1141
2 hrs. est	Solid Gypsum—¾" IMPERIAL plaster base & veneer plaster—pl base lamin ea face to 1" USG gypsum corebd—met angle runners at flr & clg—joints stag & taped—½" IMPERIAL plaster wt 10 width 2½"	TL-63-208 (s)	34		135		a-1141
2 hrs.	Solid Gypsum Vent Shaft—¾" IMPERIAL plaster base Type X & veneer plaster—¾" pl base lamin & screw att ea face to 1" USG gypsum corebd—joints stag—¾"x1½" angle runners horiz at flr clg & qtr points—one side with joints taped and ½" IMPERIAL plaster wt 9 width 2¾"	UL Des 21-2 hr (f)	N/A		128		a-1141
2 hrs.	Chan Stud—Solid Metal Lath & Plaster—¾" cr chan 16" o.c.—3.4# dm met lath—STRUCTO-LITE (Type R) plaster wt 12 width 2½"	UL Des 19-2 hr (f)	N/A		137	2-hr. rating also with 2" of wood fiber plaster per NBS 71 table 7	a-1031

METAL FRAMED TYPE

2 hrs.	Met Stud—2 layers ¾" IMPERIAL plaster base Type X & veneer plaster—¾" USG met studs 24" o.c.—base layer screw att—face layer lamin—joints taped—½" IMPERIAL plaster wt 12 width 6¾"	UL Des 11-2 hr (f) TL-63-177 (s)	50		174	Excellent for corridors; sound performance based on perimeter caulking	a-1141
2 hrs.	Met Stud—2 layers ½" IMPERIAL plaster base & veneer plaster—2½" USG met studs 24" o.c.—run track gasketed & caulked—base layer screw att—face layer strip lamin 24" o.c. & att with Type G screws betw studs—2" THERMAFIBER sound atten bkts att one side—½" IMPERIAL plaster—perimeter caulked wt 10 width 4¾"	UL Des 27-2 hr (f) CK 654-66 (s) USG-127-FT-G&H (s) Field Test KSO-1090072-a (s)	52 48	53 49	183	CK 654-66 based on 2 layers Type X base screw-attached and 1" THERMAFIBER blankets; fire test same construction without wool	a-1141
2 hrs.	Met Stud—2 layers ½" IMPERIAL plaster base Type X & veneer plaster—2½" or 3½" USG studs 24" o.c.—1", 1½" or 2" THERMAFIBER sound atten bkts stapled—pl base appl vert & joints stag—base layer screw att—face layer strip lamin with Type G screws betw studs—joints taped—½" IMPERIAL plaster—perimeter caulked wt 10 width 4¾"	UL Des 28-2 hr (f)	N/A		180		a-1141
2 hrs.	Stl Stud—Metal Lath & Plaster—2½" TRUSSTEEL studs 16" o.c.—3.4# dm met lath—¾" 100:1 gypsum wood fiber sand plaster wt 17 width 4¾"	UL-R4024-9-10 (f)	N/A		210	Excellent fire performance; highly abrasion resistant	a-1171
2 hrs.	Stl Stud—Gypsum Lath & Plaster—2½" TRUSSTEEL studs 16" o.c.—¾" perf ROCKLATH—¾" 100:2-100:2 gypsum perlite plaster wt 11 width 5"	T-1813-GA-OSU (f)	N/A		132	Excellent fire rating at a low cost	a-1181

WOOD FRAMED TYPE

2 hrs.	Wd Stud—2 layers ¾" IMPERIAL plaster base Type X & veneer plaster—2x4 16" o.c.—base layer 6d nails 6" o.c.—face layer lamin or nailed to base—½" IMPERIAL plaster both sides—joints taped wt 12 width 6¾"	UL Des 4-2 hr (f)	N/A		169	Basic 2-hour partition construction	a-1331
2 hrs.	Wd Stud—Gypsum Lath & Plaster—2x4 16" o.c.—¾" perf ROCKLATH nailed 5" o.c.—hex wire mesh nailed 8" o.c. over face of lath & held ½" away from face—1" 100:2½ gypsum perlite plaster wt 12 width 6¾"	T-961-OSU (f)	N/A		195		a-1360

a**partitions**

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
1½-hour rated partitions DRYWALL ASSEMBLIES							
SOLID TYPE							
1½ hrs.	Solid Drywall—½" SHEETROCK gypsum wallbd faces ea side over 1" USG gypsum corebd—face layers lamin—joints stag & fin—1" sq wd runner wt 8 width 2"	T-1175-OSU (f)	N/A		105		a-1070
1-hour rated partitions PLASTERED ASSEMBLIES							
MASONRY TYPE							
1 hr.	Gypsum Tile—3" hol PYROBAR—unplastered wt 11 width 3"	BMS-92 table 24 (f)			78		a-1161
1 hr.	Gypsum Tile—2" solid PYROBAR—unplastered wt 11 width 2"	BMS-92 table 24 (f)			86	For col. fireprfg., short runs & vent shafts only	a-1161
METAL FRAMED TYPE							
1 hr. est	Stl Stud—Resil Gypsum Lath & Plaster—¾" TRUSSTEEL studs 16" o.c.—2" THERMAFIBER sound atten bkts—TR-1 clips one side & TL-1 clips opp side—¾" ROCKLATH—½" 100:2-100:2 gypsum sand plaster—perimeter caulked wt 14 width 5½"	USG-125-FT-G&H (s) CK-664-38 (s) GA-2-3-4-FT-G&H (s) Field Test KSO-1090072-b (s)	49 50 47	52 46	150	Est. fire rating, GA-2-3-4-FT-G&H and CK-664-38 based on perf. ROCKLATH. 2 caulked outlets on each side in field test	a-1181
1 hr.	Stl Stud—Resil ½" IMPERIAL plaster base Type X & veneer plaster—2½" TRUSSTEEL studs 24" o.c.—RC-1 chan both sides spaced 16" o.c. att with ¾" Type T pan head screws—pl base att with 1" Type S screws—1/16" IMPERIAL plaster—joints taped wt 7 width 4¾"	T-4831-OSU (f) TL-69-288 (s) TL-69-278 (s)		36 48	135 150	TL-69-278 based on assembly with 1½" THERMAFIBER sound attenuation blankets	a-1151
1 hr. est	Stl Stud—Resil Metal Lath & Plaster—2½" TRUSSTEEL studs 16" o.c.—one side #400 resil clips & pencil rods—opp side direct with SUPER-TITE clips—3.4# dm met lath—¾" 100:2-100:3 gypsum sand plaster—perimeter caulked wt 16 width 4¾"	TL-68-32 (s)		47	160	Erection speeded by clip attachment	a-1171
1 hr. est	Met Stud—Gypsum Lath & Plaster—2½" USG studs 16" o.c.—¾" ROCKLATH—MS-1 clips both sides—1" THERMAFIBER sound atten bkts—½" 100:2½ gypsum sand plaster—perim caulked wt 15 width 4¾"	CK-664-18 (s)		49	138		a-1191
1 hr.	Met Stud—1 layer ½" IMPERIAL plaster base Type X & veneer plaster—¾" USG met studs 24" o.c.—pl base screw att—1" THERMAFIBER sound atten bkts stapled one side—joints stag & taped—1½" IMPERIAL plaster—perimeter caulked wt 8 width 4¾"	T-3124-OSU (f) CK-664-1 (s)		45	134	Fire test based on assembly with 2½" studs, without wool. Stud spacing at 16" o.c. recommended	a-1141
1 hr. est	Met Stud—Gypsum Lath & Plaster—2½" USG studs 16" o.c.—¾" ROCKLATH—MS-1 clips both sides—½" 100:2½ gypsum sand plaster—perim caulked wt 14 width 4¾"	CK-664-17 (s)		45	125		a-1191
1 hr.	Stl Stud—Metal Lath & Plaster—¾" TRUSSTEEL studs 16" o.c.—3.4# dm met lath—¾" 100:2-100:2 gypsum sand plaster wt 16 width 4¾"	BMS-92 table 31 (f) NBS-329 F44 (s)	41		150	Standard steel stud partition	a-1171
1 hr. est	Stl Stud—Resil Gypsum Lath & Plaster—2½" TRUSSTEEL studs 16" o.c.—TR-1 clips one side & TL-1 clips opp side—¾" perf ROCKLATH—½" 100:2 gypsum sand plaster—perimeter caulked wt 12 width 4¾"	TL-69-14 (s)		46	128	Can improve STC with sound blankets stapled to back of direct-applied side per 125-FT test	a-1181
1 hr.	Stl Stud—Gypsum Lath & Plaster—2½" TRUSSTEEL studs 16" o.c.—¾" perf ROCKLATH—½" 100:2-100:2 gypsum sand plaster wt 13 width 4½"	T-309-OSU (f) TL-58-7 (s)	41		125	Record of proven performance	a-1181
1 hr.	Stl Stud—Gypsum Lath & Plaster—1½" TRUSSTEEL studs 16" o.c.—¾" perf ROCKLATH—½" 100:2-100:2 gypsum sand plaster wt 13 width 3¾"	T-887-OSU (f) TL-58-7 (s)	41		123	Good alternate for most solid partitions	a-1181
1 hr.	Met Stud—Gypsum Lath & Plaster—2½" USG studs 24" o.c.—2" THERMAFIBER sound atten bkts—¾" perf ROCKLATH screw att—½" gypsum sand plaster wt 13 width 4¾"	T-1974-OSU (f) TL-63-268 (s)	38		141		a-1191
1 hr.	Stl Stud—Metal Lath & Plaster—¾" TRUSSTEEL studs 16" o.c.—3.4# dm met lath direct att with SUPER-TITE clips—¾" 100:2-100:2 gypsum sand plaster wt 16 width 4¾"	T-4228-OSU (f)	N/A		145	Erection speeded by clip attachment	a-1171
SOLID TYPE							
1 hr.	Studless—Solid Metal Lath & Plaster—¾" riblath—100:2-100:2 gypsum sand plaster wt 18 width 2"	T-162-OSU (f) NBS-527-F51 (s)	38		127	Adaptable in areas of large volume constr	a-1031
1 hr.	Chan Stud—Solid Metal Lath & Plaster—¾" cr chan 16" o.c.—2.5# dm met lath—100:2-100:2 gypsum sand plaster wt 18 width 2"	MLA T-129 OSU (f) NBS-523 F45 (s)	37		133	Standard solid partition design	a-1031
1 hr.	Studless—Solid Gypsum Lath & Plaster—½" long length ROCKLATH—¾" 100:1-100:2 gypsum sand plaster wt 16 width 2"	T-118-7 & 8-OSU (f) NBS-510 F29 (s)	34		120	Ideal for volume projects when fitting or cutting is minimum	a-1031

partitions

a

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
WOOD FRAMED TYPE							
1 hr.	Wd Stud—Resil 3/8" IMPERIAL plaster base & veneer plaster—2x4 16" o.c.—3" THERMAFIBER ins wool blkts—RC-1 chan one side spaced 24" o.c.—base att with 1" Type S screws—opp side att direct with 1/4" Type W screws—1/16" IMPERIAL plaster both sides—perimeter caulked wt 8 width 5 1/2"	UL Des 27-1 hr (f) CK-664-4 (s) USG-111-FT-G&H (s)		49 50	142	Good sound isolation combined with highly abrasion-resistant surface. CK-664-4 based on 1/2" plaster base	a-1331
1 hr.	Wd Stud—1/2" IMPERIAL plaster base Type X att direct & veneer plaster—2x4 16" o.c.—base att 6d nails 7" o.c. 1/16" IMPERIAL pl—joints taped wt 7 width 4 3/4"	U of C 10-27-64 (f)	N/A		113	Excellent surface hardness and abrasion resistance	a-1331
1 hr.	Wd Stud—3/8" IMPERIAL plaster base Type X & veneer plaster—2x4 16" o.c.—pl base nailed 7" o.c. 1 1/8" cem ctd nails—1/16" IMPERIAL plaster both sides—joints taped wt 7 width 5"	UL Des 5-1 hr (f)	N/A		120		a-1331
1 hr. est	Stag Wd Stud—Gypsum Lath & Plaster—stag 2x4 16" o.c.—com top & bottom plates—2" THERMAFIBER ins wool batts—3/8" plain ROCKLATH nailed—1/2" gypsum sand plaster wt 18 width 7 3/8"	TL-58-64 (s)	50		182	Excellent party wall	a-1360
1 hr.	Wd Stud—Resil Gypsum Lath & Plaster—2x4 16" o.c.—3/8" perf ROCKLATH—R-1 resil clips—1/2" 100:2 gypsum sand plaster wt 15 width 6 1/8"	T-1329-OSU (f) TL-60-20 (s)	47		160		a-1360
1 hr. est	Wd Stud—Resil Metal Lath & Plaster—2x4's—3.4# dm met lath—1/4" pencil rod—#200 resil clips—3/4" gypsum sand plaster wt 21 width 6 1/8"	TL-61-86 (s)	43		177	Excellent sound isolation for this type construction	a-1350
1 hr.	Wd Stud—Gypsum Lath & Plaster—2x4 16" o.c.—3/8" plain ROCKLATH—1 1/8" nails 4" o.c.—1/2" 100:2 gypsum sand plaster wt 15 width 5 3/8"	T-1380 OSU (f) NBS-148 (s)	40		128	Standard wood stud partition	a-1360
1 hr.	Wd Stud—Metal Lath & Plaster—2x4 16" o.c.—3.4# dm met lath—3/4" 100:2-100:3 gypsum sand plaster wt 20 width 5 3/8"	BMS-92 table 30 (f) NBS-228 F43 (s)	41		146		a-1350
1 hr.	Wd Stud—Metal Lath & Plaster—2x4 16" o.c.—3.4# dm met lath—3/8" 100:2-100:2 gypsum sand plaster wt 18 width 5 3/8"	BMS-92 table 30 (f)	39 est		146		a-1350
METAL FRAMED TYPE DRYWALL ASSEMBLIES							
1 hr. est	Met Stud—3/8" SHEETROCK FIRECODE gypsum wallbd—2 1/2" USG studs 24" o.c.—1 1/2" THERMAFIBER sound atten blkts—2 layer—base layer 1/4" SHEETROCK wallbd screw att—3/8" wallbd face layer screw att—joints fin—perimeter caulked wt 7 width 4 1/4"	CK-684-14 (s) CK-684-13 (s)	55 53		166 149	CK-684-13 based on 1/2" thick board	a-1201
1 hr.	Met Stud—2 layers 1/2" SHEETROCK gypsum wallbd ea side—1 1/2" USG studs 24" o.c.—wallbd appl vert & screw att—joints stag & fin—perimeter caulked wt 9 width 3 3/8"	U of C 9-21-64 (f) CK-654-40 (s)		53	150	Sound test based on 2 1/2" studs & 1 1/2" wool thickness	a-1201
1 hr. est	Met Stud—1/2" SHEETROCK FIRECODE "C" gypsum wallbd—2 1/2" USG studs 24" o.c.—single layer wallbd one side appl vert & screw att—1 1/2" THERMAFIBER sound atten blkts one side—2 layers wallbd opp side appl vert & screw att—joints stag & fin—perimeter caulked wt 7 width 4"	TL-69-153 (s) TL-69-148 (s)	49 41		133	TL-69-148 based on same construction without wool	a-1201
1 hr.	Met Stud—1/2" SHEETROCK FIRECODE "C" gypsum wallbd—2 1/2" USG studs 24" o.c.—single layer wallbd ea side appl vert & screw att—1 1/2" THERMAFIBER sound atten blkts one side—joints fin—perimeter caulked wt 5 width 3 1/2"	T-3362-OSU (f) TL-69-42 (s) TL-65-158 (s)	45 48		138	TL-65-158 based on 3 3/8" studs & 1" wool thickness	a-1201
1 hr.	Met Stud—3/8" SHEETROCK FIRECODE gypsum wallbd—3 1/2" USG studs 24" o.c.—wallbd single layer vert or horiz appl & screw att 12" o.c.—joints fin—perimeter caulked wt 6 width 4 7/8"	T-1174-OSU (f) GA-WP-45-1 hr (f) USG-17-FT-G&H (s)	42		109	Basic 1-hr corridor—fire tests based on screws 8" o.c. at vert joints—WP-45 based on horiz appl	a-1201
1 hr. est	Met Stud—1/2" SHEETROCK FIRECODE "C" gypsum wallbd—3" USG studs 24" o.c.—wallbd single layer vert appl & screw att—1 1/2" THERMAFIBER sound atten blkts—joints fin—perim caulked wt 5 width 4"	TL-70-116 (s) TL-70-106 (s)	43 37		155	TL-70-106 based on same construction without wool	a-1201
1 hr.	Met Stud—3/8" SHEETROCK FIRECODE gypsum wallbd—1 1/2" USG studs 24" o.c.—wallbd single layer vert appl & screw att 12" o.c.—joints fin—perimeter caulked wt 5 width 2 3/8"	U of C 7-31-62 (f) TL-64-29 (s)	38		108	Min. 1-hr. drywall partn.—fire test based on screws 8" o.c. at vert. joints	a-1201
1 hr.	Shaft Wall Gypsum Drywall—3/8" SHEETROCK gypsum wallbd one side over 2" USG lamin gypsum corebd set in met J-run—met H-studs 24" o.c.—wallbd appl vert & screw att—joints fin wt 12 width 2 3/8"	T-4422-OSU (f)	N/A		154	Fire rating also applies with IMPERIAL Plaster Base and veneer plaster surface	a-1081
LAMINATED TYPE							
1 hr.	278 Gypsum Studwall—3/8" SHEETROCK FIRECODE gypsum wallbd—1 1/2"x6" lamin gypsum studs 24" o.c.—wallbd screw att both sides 18" o.c. wt 7 width 2 3/8"	UL Des 16-1 hr (f)	N/A		113	Basic interior divider—chase allows easy elect. installation	a-1070
1 hr. est	368 Gypsum Ribwall—3/8" SHEETROCK FIRECODE gypsum wallbd—1 1/2"x6" gypsum ribs 24" o.c. lamin betw single layer wallbd ea side—wallbd screw att at joints—joints fin wt 8 width 3 3/4"	TL-62-285 (s)	43		130		a-1070

a partitions

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			

1-hour rated partitions

DRYWALL ASSEMBLIES (continued)

MOVABLE TYPE

82	1 hr.	Mov Demountable Partn— $\frac{1}{2}$ " vinyl faced TEXTONE FIRECODE "C" gypsum panels & battens screw att— $2\frac{1}{2}$ " USG met studs 24" o.c.—2" THERMAFIBER sound atten blkts wt 6 width $3\frac{1}{2}$ "	UL Des 21-1 hr (f) TL-63-127 (s)	(f) (s)	49	187	Low cost—only metal stud movable partn. with high sound & fire rating	a-1281
83	1 hr.	Mov VAUGHAN WALLS pre-chased sound wall—spec $\frac{5}{8}$ " USG gypsum wallbd face panels lamin to $\frac{5}{8}$ " gypsum base layer panels— $\frac{1}{2}$ " gypsum core strips placed to form panel joints—2 rows $1\frac{1}{2}$ " thick—alum trim wt 10 width 3"	U of C 8-12-68 (f) WEAL 67-131 (s)	(f) (s)	45	175	Tenant wall with excellent space-saving features	a-1291
84	1 hr.	Mov VAUGHAN WALLS pre-chased partn—spec $\frac{5}{8}$ " USG gypsum wallbd face panels lamin to spec 1" gypsum core strips placed to form panel joints wt 7 width $2\frac{1}{4}$ "	U of C 11-1-66 (f) TL-64-212 (s)	(f) (s)	36	150	Aluminum ceiling and floor runners. Excellent corridor or tenant partition	a-1291
85	1 hr.	Mov VAUGHAN WALLS standard solid partn—spec $\frac{5}{8}$ " USG gypsum wallbd face panels lamin to spec 1" USG gypsum core units 24" wide wt 9 width $2\frac{1}{4}$ "	T-1235-OSU (f) U of C 5-24-65 (f) TL-64-213 (s)	(f) (f) (s)	36	166	Aluminum trim with steel inserts used in U of C fire test. Fine corridor, tenant wall	a-1291
86	1 hr.	Mov ULTRAWALL Drywall Partn—concealed "H" studs 24" o.c.— $\frac{3}{4}$ "x24" bevel edge FIRECODE panels—joints unfin wt 7 width $3\frac{3}{8}$ "	U of C 8-18-67 (f) TL-69-252 (s)	(f) (s)	36	186	Versatile movable partn.—variety of style combinations	a-1301

WOOD FRAMED TYPE

87	1 hr.	Wd Stud—Resil $\frac{5}{8}$ " SHEETROCK FIRECODE "C" gypsum wallbd—2x4 16" o.c.—3" THERMAFIBER ins wool blkts—RC-1 chan one side spaced 24" o.c.—wallbd att with 1" Type S screws—opp side direct att with $1\frac{1}{4}$ " Type W screws—joints fin—perimeter caulked wt 7 width $5\frac{1}{8}$ "	UL Des 27-1 hr (f) USG-33-FT-G&H (s)	(f) (s)	52	134	Best value of wood stud drywall party walls	a-1401
88	1 hr. est	Stag Wd Stud— $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd—2x3 16" o.c.—2x3 plates 1" apart—wallbd att with $1\frac{1}{4}$ " Type W screws 16" o.c.—2" THERMAFIBER ins wool blkts one side—perim caulked wt 8 width $7\frac{1}{2}$ "	USG-106-FT-G&H (s) USG-155-FT-G&H (s)	(s) (s)	51 49	153	Best value in 50 stc range for this type of party wall. 155-FT based on 2x6 common plate	a-1391
89	1 hr.	Wd Stud—Resil $\frac{5}{8}$ " SHEETROCK FIRECODE gypsum wallbd—2x4 16" o.c.—RC-1 chan both sides spaced horiz 24" o.c. att with 6d nails—wallbd att with 1" Type S screws—joints fin—perimeter caulked wt 7 width $5\frac{1}{8}$ "	T-1396-OSU (f) TL-60-52 (s)	(f) (s)	45	127	Fully resilient 1-hr. fire rated party wall	a-1401
90	1 hr. est	Wd Stud— $\frac{1}{2}$ " SHEETROCK FIRECODE "C" gypsum wallbd—2x4 16" o.c.—2 layer—base layer $\frac{1}{4}$ " SHEETROCK gypsum wallbd appl vert with 4d ctd nails— $\frac{1}{2}$ " wallbd face layer strip lamin—joints stag & fin—perimeter caulked wt 8 width $5\frac{1}{8}$ "	TL-69-52 (s)	(s)	45	160		a-1391
91	1 hr. est	Stag Wd Stud— $\frac{5}{8}$ " SHEETROCK FIRECODE "C" gypsum wallbd—2x4 16" o.c. on 2x6 com plate—wallbd att with 6d ctd nails 7" o.c.—2" THERMAFIBER ins wool blkts one side—perim caulked—joints fin wt 8 width $6\frac{1}{8}$ "	TL-69-213 (s)	(s)	45	140		a-1391
92	1 hr.	Wd Stud—2 layers $\frac{3}{8}$ " SHEETROCK gypsum wallbd lamin & nailed—2x4 16" o.c.—joints fin wt 7 width $5\frac{1}{8}$ "	T-118-48-OSU (f) TL-57-14 (s)	(f) (s)	38	133		a-1391
93	1 hr.	Wd Stud— $\frac{5}{8}$ " SHEETROCK FIRECODE or W/R FIRECODE "C" gypsum wallbd—2x4 16" or 24" o.c.—wallbd nailed 7" o.c.— $1\frac{1}{8}$ " cem ctd nails—joints fin—perim caulked wt 7 width $4\frac{1}{8}$ "	UL Des 5-1 hr (f) UL Des 38-1 hr (f) USG-30-FT-G&H (s)	(f) (f) (s)	34	111	UL Des 38-1 hr. based on 24" stud spacing	a-1391

other partitions

PLASTERED ASSEMBLIES

WOOD FRAMED TYPE

94	N/A	Wd Stud—Resil Gypsum Lath & Plaster—2x4 16" o.c.—3" THERMAFIBER ins wool blkts— $\frac{3}{8}$ " plain ROCKLATH appl direct one side—opp side R-1 resil clips & $\frac{3}{8}$ " ROCKLATH— $\frac{1}{2}$ " 100:2½ gypsum sand plaster both sides—perimeter caulked wt 14.5 width $5\frac{1}{4}$ "	CK-664-37 (s) USG-118-FT-G&H (s)	(s) (s)	56	50	159	Outstanding sound attenuation through use of clips and insulating wool	a-1360
95	N/A	Wd Stud—Resil Gypsum Lath & Plaster—2x4 16" o.c.— $\frac{3}{8}$ " plain ROCKLATH—R-1 resil clips both sides— $\frac{1}{2}$ " 100:2½ gypsum sand plaster both sides—perimeter caulked wt 14.5 width $6\frac{1}{8}$ "	USG-121-FT-G&H (s)	(s)	54		138	Excellent sound attenuation at moderate cost	a-1360

ceilings

b

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			

other partitions (continued)

DRYWALL ASSEMBLIES

MOVABLE TYPE

N/A	Mov ULTRAWALL Drywall Partn—concealed "H" studs 24" o.c.—1½" THERMAFIBER sound atten blkts—¾"x 24" bevel edge panels one side—double layer opp side with ¾" Z-Splines betw layers—joints unfin—perim caulked—painted wt 12 width 4½"	TL-70-198 (s)		50	270	Ideal choice for maximum sound isolation	a-1301	96
N/A	Mov ULTRAWALL Drywall Partn—concealed "H" studs 24" o.c.—1½" THERMAFIBER sound atten blkts—¾"x 24" bevel edge panels—joints unfin wt 7 width 3½"	TL-69-259 (s)		44	180		a-1301	97
N/A	Mov Demountable Partn—½" vinyl faced TEXTONE FIRECODE gypsum panels & battens screw att—2½" USG met studs 24" o.c. wt 5½ width 3½"	TL-63-126 (s)	42		172	Same as TL-63-127 without wool—note stc difference	a-1281	98

ceiling air distributing and heating systems

VARIOUS ASSEMBLIES

3 hrs. (beam 4 hrs.)	AIRSON AURATONE FIRECODE Air Dist Syst on Susp Exp Grid Syst—¾"x24"x24" or 24"x48" acoust clg panels 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over stl beam clg wt 1.2	UL Des 226-3 hr (f)	40 to 44		clg matls 102	Includes air controls in panels; "cost index" excludes zone barriers & plenum insul.	b-1561	1
3 hrs. (beam 5 hrs.)	AIRSON AURATONE FIRECODE Air Distr Syst on Exposed Grid—¾"x24"x48" acoust panels 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on cellular stl flr clg wt 1.2	UL Des 65-3 hr (f)	37 to 39		clg matls 102	Includes air controls in panels; "cost index" excludes zone barriers & plenum insul.	b-1561	2
3 hrs. (beam 4 hrs.)	AIRSON AURATONE FIRECODE Air Distr Syst on Concealed Z-Splines—¾"x12"x12" acoust tile 100% AIRSON A-2 or 50% AIRSON A-5—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on cellular stl flr clg wt 1.2	UL Des 59-3 hr (f)	40 to 44		clg matls 142	Includes air controls in tile—"cost index" excludes zone barriers & plenum insul.	b-1561	3
2 hrs. (beam 3 hrs.)	AIRSON AURATONE FIRECODE Air Dist Syst on Susp Exp Grid Syst—¾"x24"x24" to 30"x60" acoust clg panels 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 299-2 hr (f)	40 to 44		clg matls 102	Includes air controls in panels; "cost index" excludes zone barriers & plenum insul.	b-1561	4
2 hrs.	AIRSON AURATONE FIRECODE Air Distr Syst on Exposed Grid—¾"x24"x48" acoust panels 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2" PYROFILL gypsum conc roof deck with ½" SHEETROCK formbd over bar joist clg wt 1.2	UL Des RC-6-2 hr (f)	37 to 39		clg matls 102	Includes air controls in panels; "cost index" excludes zone barriers & plenum insul.	b-1561 c-1641	5
2 hrs. (beam 4 hrs.)	AIRSON AURATONE FIRECODE Air Distr Syst on Exposed Grid—¾"x24"x48" or 24"x24" acoust panels 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 72-2 hr (f) UL Des 226-2 hr (f)	N/A		clg matls 102	UL Des 226-2 hr includes 4-hr beam; "cost index" excludes zone barriers & plenum insul.	b-1561	6
2 hrs. (beam 2 hrs.)	AIRSON ACOUSTONE 120 Air Distr Syst on USG Concealed Z-Spline Susp Syst—¾"x12"x12" min acoust tile 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on cellular stl flr clg wt 1.3	UL Des 85-2 hr (f)	35 to 39		clg matls 155	Includes air controls in tile; "cost index" excludes zone barriers & plenum insul.	b-1561	7
2 hrs. (beam 2 hrs.)	AIRSON ACOUSTONE 120 Air Distr Syst on Exposed Grid—¾"x24"x24" min acoust tile 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.3	UL Des 278-2 hr (f)	39 est		clg matls 145	Includes air controls in tile "cost index" excludes zone barriers & plenum insul.	b-1561	8
2 hrs. (beam 2 hrs.)	AIRSON AURATONE FIRECODE Air Distr Syst on Concealed Accessible Grid—¾"x12"x12" to 24"x24" acoust tile 50% AIRSON A-5 or 100% AIRSON A-2—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.3	UL Des 281-2 hr (f)	40 to 44		clg matls 150	Includes air controls in tile; "cost index" excludes zone barriers & plenum insul.	b-1561	9
2 hrs.	AIRSON AURATONE FIRECODE Air Distr Syst on Concealed Z-Splines—¾"x12"x12" acoust tile 100% AIRSON A-2 or 50% AIRSON A-5—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 84-2 hr (f)	40 to 44		clg matls 135	Includes air controls in tile—"cost index" excludes zone barriers & plenum insul.	b-1561	10

b ceilings

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
ceiling air distributing and heating systems (continued)							
2 hrs.	AIRSON AURATONE FIRECODE Air Distr Syst on Concealed Z-Splines— $\frac{5}{8}$ "x12"x12" acoust tile 100% AIRSON A-2 or 50% AIRSON A-5—clg interrupted—light fixt prot by $\frac{1}{4}$ " THERMAFIBER min wool bd—2" THERMOFILL gypsum conc roof deck with $\frac{1}{2}$ " SHEETROCK formbd over bar joist clg wt 1.2	UL Des RC-13-2 hr(f)	40 to 44		clg matls 135	Includes air controls in tile—"cost index" excludes zone barriers & plenum insul.	b-1561 c-1641
incomb. class 25	AIRSON AURATONE Air Distr Syst on Exposed Grid— $\frac{5}{8}$ "x24"x24" or 24"x48" acoust panels slotted AIRSON A-5 or A-2 on a 100%, 50% or 25% basis clg wt 1.2	authority ASTM E84	N/A		clg matls 102	Air controls in panels; "cost index" excludes zone barriers & plenum insul.	b-1561 f-1921
incomb. class 25	AIRSON ACOUSTONE "F" Air Distr Syst on USG Concealed Z-Spline Susp Syst— $\frac{3}{4}$ "x12"x12" or 12"x24" min acoust tile—slotted AIRSON A-2 or A-5 clg wt 1.3	authority ASTM E84	35 to 39		clg matls 150	Basic concealed system; "cost index" excludes zone barriers & plenum insul.	b-1561 f-1921
incomb.	AIRSON Grid Air Distr Syst—Exposed AIRFLO grid systems for standard acoust panels—adjustable air distr through grid itself	—	N/A		clg matls 102 excl plenum treatmt	Basic exposed grid system with unslotted panels—steel or aluminum grid	b-1561 f-1921
1 hr.	RED TOP Radiant Heat Plaster—1" nom wd sub & fin flr on wd joist—spec $\frac{1}{2}$ " Type X pl base att direct—5d nails 6" o.c.—fiber tape stapled over joints—elect heat cables embedded in $\frac{1}{4}$ " radiant heat plaster clg wt 5	FPRI 39 (f)	N/A		clg matls 32	Better heat emission, allows higher cable temps than with other plasters	b-1510
4-hour rated ceilings VARIOUS ASSEMBLIES							
4 hrs. (beam 4 hrs.)	AURATONE FIRECODE $\frac{5}{8}$ "x24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by $\frac{1}{4}$ " THERMAFIBER min wool bd—2 $\frac{1}{2}$ " conc on cellular stl flr clg wt 1.2	UL Des 45-4 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541
4 hrs. (beam 4 hrs.)	Metal Lath & Plaster— $\frac{3}{4}$ " cr chan susp 7 $\frac{1}{4}$ " below deck 2" below beam—3.4# dm met lath & $\frac{5}{8}$ " 100:3 gypsum perlite plaster basecoat— $\frac{1}{2}$ " USG acoust plaster—conc over cellular stl flr clg wt 7	GA-NBS-338 (f)	N/A		clg matls 140		b-1480
4 hrs. (beam 4 hrs.)	Metal Lath & Plaster— $\frac{3}{4}$ " chan 13" o.c. 3 $\frac{1}{2}$ " below beam—3.4# dm met lath & $\frac{5}{8}$ " STRUCTO-LITE (Type S) plaster—2" conc over fluted stl flr clg wt 6	UL Des 12-4 hr (f)	N/A		clg matls 129		b-1480
4 hrs.	ROCKLATH PI Base & Plaster— $\frac{3}{4}$ " cr chan 12" o.c. & BRACE-TITE Clips— $\frac{3}{8}$ " perf gypsum lath—1" 100:2-100:3 gypsum perlite plaster—1" 20-ga hex mesh—2" conc on riblath over bar joist clg wt 7	GA-NBS-311 (f)	N/A		clg matls 120		b-1460
3-hour rated ceilings VARIOUS ASSEMBLIES							
3 hrs.	ACOUSTONE 180 Fissured or MOTIF'D $\frac{3}{4}$ "x12"x12" min acoust tile on Concealed Z-Spline Syst—2 $\frac{1}{2}$ " conc deck on riblath over bar joist clg wt 1.3	UL Des 96-3 hr (f)		39 est	clg matls 112		b-1551
3 hrs. (beam 4 hrs.)	AURATONE FIRECODE $\frac{5}{8}$ "x24"x24" or 24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by $\frac{1}{4}$ " THERMAFIBER min wool bd—2 $\frac{1}{4}$ " conc on cellular stl flr over stl beam clg wt 1.2	UL Des 226-3 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541
3 hrs. (beam 5 hrs.)	AURATONE FIRECODE $\frac{5}{8}$ "x24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by $\frac{1}{4}$ " THERMAFIBER min wool bd—2 $\frac{1}{2}$ " conc on cellular stl flr clg wt 1.2	UL Des 65-3 hr (f) UL Des 212-3 hr (f)	40 to 44		clg matls 65	UL Des 212-3 hr based on 12" beam rated at 3 hrs	b-1541
3 hrs. (beam 4 hrs.)	AURATONE FIRECODE $\frac{3}{4}$ "x12"x12" acoust clg tile on Concealed Z-Spline Syst—clg interrupted—light fixt prot by $\frac{1}{4}$ " THERMAFIBER min wool bd—2 $\frac{1}{2}$ " conc on cellular stl flr clg wt 1.2	UL Des 59-3 hr (f)	40 to 44		clg matls 100	See Sound Control Products Folder for STC values of various patterns	b-1541
3 hrs. (beam 3 hrs.)	$\frac{5}{8}$ " IMPERIAL gypsum pl base Type X & veneer plaster ceiling—USG met fur chan 24" o.c.—pl base att with 1" Type S screws 12" o.c.—joints exp or taped— $\frac{1}{16}$ " IMPERIAL plaster—3" conc on riblath over bar joist clg wt 4	UL-Des 82-3 hr (f)	N/A		clg matls 62	Spacing of furring channel at 16" o.c. recommended	b-1471
3 hrs. (beam 3 hrs.)	$\frac{5}{8}$ " SHEETROCK FIRECODE "C" gypsum wallbd—USG met fur chan 24" o.c.—wallbd att with 1" Type S screws 12" o.c.—joints exp or fin—3" conc on riblath over bar joist clg wt 3	UL Des 82-3 hr (f)	N/A		clg matls 40		b-1491
3 hrs.	ROCKLATH PI Base & Plaster— $\frac{3}{4}$ " cr chan 12" o.c. & BRACE-TITE Clips— $\frac{3}{8}$ " perf gypsum lath—14-ga diag wire reinf— $\frac{3}{16}$ " 100:2 $\frac{1}{2}$ gypsum perlite plaster—2 $\frac{1}{2}$ " conc over cellular stl flr clg wt 5	GA-NBS-337 (f)	N/A		clg matls 115	Good crack resistance with an opportunity to reinforce plaster at re-entry angle	b-1460
3 hrs. (beam 4 hrs.)	Metal Lath & Plaster— $\frac{3}{4}$ " cr chan susp 15 $\frac{1}{2}$ " below deck & 3 $\frac{1}{2}$ " below beam—3.4# dm mesh metal lath— $\frac{5}{8}$ " STRUCTO-LITE (Type R) plaster—2" conc over cellular stl flr clg wt 5	UL Des 11-3 hr (f)	N/A		clg matls 127		b-1480
3 hrs.	Metal Lath & Plaster— $\frac{3}{4}$ " cr chan furred or susp—3.4# dm met lath & $\frac{5}{8}$ " neat wood fiber gypsum plaster—2 $\frac{1}{2}$ " conc on riblath over bar joist clg wt 9	BMS-92 table 43 (f)	N/A		clg matls 130	Cost index based on furred construction	b-1480

ceilings

b

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
2½-hour rated ceilings							
PLASTERED ASSEMBLIES							
2½ hrs.	Metal Lath & Plaster—¾" cr chan furred or susp—3.4# dm met lath & ¾" 100:1-100:1 gypsum wood fiber sand plaster—2½" conc on riblath over bar joist clg wt 10	UL R5429-1 (f)			clg matls 126	Cost index based on furred construction	b-1480
			N/A				
2-hour rated ceilings							
MINERAL FIBER SURFACES							
2 hrs. (beam 2 hrs.)	ACOUSTONE 120 Fissured or Glacier or MOTIF'D ¾"x12" x12" min acoust tile on Concealed Z-Spline Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on cellular stl flr clg wt 1.3	UL Des 85-2 hr (f)		39 est	clg matls 112		b-1551
2 hrs.	ACOUSTONE 120 Fissured or Glacier or MOTIF'D ¾"x12" x12" min acoust tile on Concealed Z-Spline Syst—2½" conc deck on riblath over bar joist clg wt 1.3	UL Des 41-2 hr (f)		39 est	clg matls 112		b-1551
2 hrs. (beam 3 hrs.)	AURATONE FIRECODE ¾"x24"x24" to 30"x60" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 299-2 hr (f)	40 to 44		clg matls 65	Broad fire rating approval permits up to 30"x60" panels	b-1541
2 hrs.	AURATONE FIRECODE ¾"x24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2" PYROFILL gypsum conc roof deck with ½" SHEETROCK formbd over bar joist clg wt 1.2	UL Des RC-6-2 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541 c-1641
2 hrs.	AURATONE FIRECODE ¾"x24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2" USG met edge gypsum plank over bar joist clg wt 1.2	UL Des RC-22-2 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541 c-1651
2 hrs. (beam 2 hrs.)	ACOUSTONE 120 Fissured or Glacier or Finesse ¾"x24"x24" min acoust tile on Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.3	UL Des 278-2 hr (f)		40 est	clg matls 110		b-1551
2 hrs. (beam 4 hrs.)	AURATONE FIRECODE ¾"x24"x48" or 24"x24" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 72-2 hr (f) UL Des 226-2 hr (f)	40 to 44		clg matls 65	UL Des 226-2 hr includes 4-hr beam	b-1541
2 hrs.	AURATONE FIRECODE ¾"x12"x12" acoust clg tile on Concealed Z-Spline Syst—clg interrupted—light fixt prot by 1¼" min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 84-2 hr (f)	40 to 44		clg matls 96	See Sound Control Products Folder for STC values of various patterns	b-1541
2 hrs.	AURATONE FIRECODE ¾"x12"x12" acoust clg tile on Concealed Z-Spline Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2" THERMOFILL gypsum conc roof deck with ½" SHEETROCK formbd over bar joist clg wt 1.2	UL Des RC-13-2 hr (f)	40 to 44		clg matls 96	See Sound Control Products Folder for STC values of various patterns	b-1541 c-1641
2 hrs. (beam 2 hrs.)	AURATONE FIRECODE ¾"x12"x12" to 24"x24" acoust clg tile on Concealed Accessible Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2½" conc deck on riblath over bar joist clg wt 1.2	UL Des 281-2 hr (f)	40 to 44		clg matls 100	See Sound Control Products Folder for STC values of various patterns	b-1541
2 hrs. (beam 2 hrs.)	AURATONE FIRECODE ¾"x24"x48" or 24"x24" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—2" USG flr plank and ½" MASTICAL underlayment compd over bar joist clg wt 1.2	UL Des 293-2 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541 b-1601
2 hrs.	USG Floor Plank System—½" MASTICAL underlayment compd—2" USG gypsum flr plank welded to bar joists 48" o.c.—¾" AURATONE FIRECODE ceiling panels on fire-rated exp grid subflr wt 17	UL Des 293-2 hr (f)			232		b-1541 b-1601
PLASTERED ASSEMBLIES							
2 hrs.	Metal Lath & Plaster—¾" cr chan furred or susp—3.4# dm met lath & ¾" 100:2-100:3 gypsum sand plaster—2½" conc on riblath over bar joist clg wt 9	BMS-92 table 43 (f)	N/A		clg matls 119	Cost index based on furred construction	b-1480
2 hrs.	ROCKLATH PI Base & Plaster—¾" cr chan 12" o.c. & BRACE-TITE Clips—¾" perf gypsum lath—14-ga diag wire reinf—¾" 100:2-100:3 gypsum sand plaster—2" conc over bar joist clg wt 7	GA-NBS-345 (f)	N/A		clg matls 106	Good crack resistance with an opportunity to reinforce plaster at re-entry angle	b-1460
2 hrs.	ROCKLATH PI Base & Plaster—¾" cr chan 16" o.c. & BRACE-TITE Clips—¾" perf gypsum lath—14-ga. diag wire reinf—½" 100:2½ gypsum perlite plaster—2" conc over bar joist clg wt 5	GA-NBS-318 (f)	N/A		clg matls 106		b-1460
2 hrs. (beam 2 hrs.)	½" IMPERIAL gypsum pl base Type X & veneer plaster ceiling furred or susp—USG met fur chan 24" o.c.—pl base att with screws 12" o.c.—joints taped—½" IMPERIAL plaster—2½" conc on riblath or corrug stl deck over bar joist clg wt 4	UL Des 221-2 hr (f)	N/A		clg matls 60	Spacing of furring channel at 16" o.c. recommended	b-1471

b**ceilings**

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
2-hour rated ceilings							
GYPSUM DRYWALL SURFACES							
2 hrs. (beam 2 hrs.)	½" SHEETROCK FIRECODE "C" gypsum wallbd—furred or susp—USG met fur chan 24" o.c.—wallbd att with 1" Type S screws 12" o.c.—joints exp or fin—2½" conc on riblath or corrug stl deck over bar joist clg wt 3	UL Des 221-2 hr (f)				STC based on furred interrupted clg., 1½" sound atten. bkts. ex- tendg. 4' beyond partn.	b-1491
		USG-189-FT-G&H (s)		54	clg matls 40		
2 hrs.	¾" SHEETROCK FIRECODE gypsum wallbd—furred or susp—USG met fur chan 24" o.c.—wallbd att with 1" Type S screws 12" o.c.—joints exp or fin—2½" conc deck on riblath or corrug stl deck over bar joist clg wt 3	UL Des 82-2 hr (f)	40 db est		clg matls 62	Sound estimate based on joints finished	b-1491
2 hrs.	Resil 2 layers ¾" SHEETROCK FIRECODE "C" gypsum wallbd ceiling—1" nom wd sub & fin flr—2x10 wd joist 16" o.c.—RC-1 chan spaced 24" o.c. screw att over base layer wallbd—face layer screw att to chan 12" o.c.— joints fin clg wt 5	UL Des 272-2 hr (f)		50 est	clg matls 90		b-1451
2 hrs.	USG Floor Plank System—½" MASTICAL underlayment compd—(1) no flr fin (2) foam-backed vinyl flr cover- ing (3) 44-oz carpet & 40-oz pad atop flr—2" USG gypsum flr plank welded to bar joists 48" o.c.—USG met fur chan 24" o.c. wire tied to joist—¾" SHEETROCK FIRECODE "C" gypsum wallbd screw att 12" o.c.—joints exp or fin subflr wt 17	UL Des 266-2 hr (f) (1) BBN-681014 (s) (1) BBN-681015 (s) (2) BBN-681016 (s) (3) BBN-681017 (s)	(IIC) 31 50 69	51	(1) 248 (2) 372 (3) 413	BBN-681015, 6, 7 show impact sound ratings	b-1491 b-1601
1½-hour rated ceilings							
VARIOUS ASSEMBLIES							
1½ hrs.	ACOUSTONE 90 Fissured or Glacier or MOTIF'D ¾"x12" x12" min acoust tile on Concealed Z-Spline Syst—2" conc deck on riblath over bar joist clg wt 1.3	UL Des 6-1½ hr (f)		44 est	clg matls 108		b-1551
1½ hrs.	Resil 2 layers ½" SHEETROCK FIRECODE "C" gypsum wallbd ceiling—1" nom wd sub & fin flr—2x10 wd joist 16" o.c.—RC-1 chan spaced 24" o.c. screw att over base layer wallbd—face layer screw att to chan 12" o.c.— joints fin clg wt 5	UL Des 22-1½ hr (f)	49 est		clg matls 46		b-1451
1½ hrs.	¾" SHEETROCK FIRECODE gypsum wallbd—furred or susp—USG met fur chan 24" o.c.—wallbd screw att 12" o.c.—joints fin—2" conc on riblath or corrug stl deck over bar joist clg wt 3	UL Des 4-1½ hr (f)	42 db est		clg matls 46	Sound attenuation estimate made for floor & ceiling system	b-1491
1½ hrs.	Metal Lath & Plaster—susp 3.4# dm met lath & 1" 100:2 gypsum sand plaster—rib type stl rf deck with 1½" wd fiber insul clg wt 13	NBS-58 (f)	N/A		clg matls 129		b-1480
1½ hrs.	Metal Lath & Plaster—susp 3.4# dm met lath & ¾" 100:2- 100:3 gypsum sand plaster—rib type stl rf deck with 1" wd fiber insul clg wt 10	NBS-57 (f)	N/A		clg matls 127		b-1480
1-hour rated ceilings							
MINERAL FIBER SURFACES							
1 hr.	ACOUSTONE 90 Fissured or Glacier or MOTIF'D ¾"x12" x12" min acoust tile on Concealed Z-Spline Syst—1" nom plywd & MASTICAL compd or wd sub & fin floor over wd joist 16" o.c. clg wt 1.3	UL Des 15-1 hr (f)		44 est	clg matls 108		b-1551
1 hr.	AURATONE FIRECODE ¾"x24"x48" acoust clg panels in Susp Exp Grid Syst—clg interrupted—light fixt prot by 1¼" THERMAFIBER min wool bd—1½" stl roof deck & 1" incomb insul over bar joist clg wt 1.2	UL Des RC-15-1 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541
1 hr.	AURATONE FIRECODE ¾"x24"x48" or 24"x24" acoust clg panels in Susp Exp Grid Syst—clg interrupted— light fixt prot by 1¼" THERMAFIBER min wool bd— 1" nom plywd & MASTICAL underlayment compd or wd sub & fin flr over 2x10 wd joist clg wt 1.2	UL Des 31-1 hr (f)	40 to 44		clg matls 65	See Sound Control Products Folder for STC values of various patterns	b-1541
GYPSUM DRYWALL SURFACES							
1 hr.	Resil ½" SHEETROCK FIRECODE "C" gypsum wallbd ceiling—1" nom plywd & MASTICAL underlayment compd or wd sub & fin flr—2x10 wd joist 16" o.c.— RC-1 chan spaced 24" o.c.—wallbd att with 1" Type S screws—joints fin clg wt 3	UL Des 41-1 hr (f)	N/A		clg matls 33		b-1451
1 hr. est	Resil ½" SHEETROCK gypsum wallbd ceiling—¾" MASTICAL underlayment compd over ¾" plywd subflr —2x10 wd joist 16" o.c.—3" THERMAFIBER ins wool bkts betw joists—RC-1 chan screw att to joists— wallbd att with 1" Type S screws—joints fin clg wt 3	BBN-670601 & 670602 (s) BBN-670705 & 670706 (s)	(IIC) 54 44	56 54	clg matls 52 47	BBN-670705 & 670706 based on same const without wool	b-1451
1 hr. est	Resil SHEETROCK gypsum wallbd ceiling—1¼" nom wd sub & fin flr—2x10 wd joist 16" o.c.—RC-1 chan screw att to joist—wallbd att with 1" Type S screws—joints fin clg wt 3	CK-6512-6 (s) (½" FIRECODE "C") CK-6412-10 (s) (¾" reg SHEETROCK)	(IIC) 39 39	47 47	clg matls 33 34		b-1451

ceilings

b

fire rating	description	test no.	stc rating		relative cost index	comments	folder reference
			11-f	16-f			
1 hr. est	Resil SHEETROCK gypsum wallbd ceiling—1¼" nom wd sub & fin flr—44-oz carpet & 40-oz pad atop flr—2x10 wd joist 16" o.c.—RC-1 chan screw att to joists—wallbd att with 1" Type S screws—joints fin clg wt 3	CK-6512-7 (s) (½" FIRECODE "C") CK-6412-9 (s) (⅜" reg SHEETROCK)	(IIC) 67 66	47 48	clg matls 33 34		b-1451
1 hr. est	Resil SHEETROCK gypsum wallbd ceiling—1¼" nom wd sub & fin flr—2x10 wd joist 16" o.c.—3" THERMAFIBER ins wool blkts betw joists—RC-1 chan screw att to joists—wallbd att with 1" Type S screws—joints fin clg wt 3	CK-6512-9 (s) (½" FIRECODE "C") CK-6412-3 (s) (⅜" reg SHEETROCK)	(IIC) 46 46	51 50	clg matls 45 46		b-1451
1 hr. est	Resil SHEETROCK gypsum wallbd ceiling—1¼" nom wd sub & fin flr—44-oz carpet & 40-oz pad atop flr—2x10 wd joist 16" o.c.—3" THERMAFIBER ins wool blkts betw joists—RC-1 chan screw att to joists—wallbd att with 1" Type S screws—joints fin clg wt 3	CK-6512-8 (s) (½" FIRECODE "C") CK-6412-4 (s) (⅜" reg SHEETROCK)	(IIC) 71 70	52 51	clg matls 45 46		b-1451
1 hr.	½" SHEETROCK FIRECODE "C" gypsum wallbd ceiling—1" nom plywd & MASTICAL underlayment compd or wd sub & fin flr—2x10 wd joist 16" o.c.—wallbd att with 5d cem ctd nails 6" o.c.—joints fin clg wt 3	UL Des 42-1 hr (f) BBN-671007 & 671008 (s)	(IIC) 35	48	clg matls 23	BBN-671007 & 671008 based on 1¼" thick MASTICAL underlayment	b-1451
1 hr.	⅝" SHEETROCK FIRECODE gypsum wallbd ceiling—Amer Plywood Assn 2-4-1 flr 4x10 wd joist 48" o.c.—USG met fur chan spaced 24" o.c.—wallbd att with 1" Type S screws—joints fin clg wt 3	UL Des 28-1 hr (f)	N/A		clg matls 36	Only 1-hr. residential drywall system based on 48" joist spacing	b-1451
1 hr.	⅝" SHEETROCK FIRECODE gypsum wallbd ceiling—1" nom wd sub & fin flr—2x10 wd joist 16" o.c.—wallbd att with 6d nails 6" o.c.—joints fin clg wt 3	UL Des 1-1 hr (f) CK-6412-7 (s) CK-6412-8 (s)	(IIC) 32 56	38 39	clg matls 26	In CK-6412-8 test, 44-oz. carpet & 40-oz. pad added atop flooring	b-1451
1 hr. est	⅝" SHEETROCK gypsum wallbd ceiling—1" nom wd sub & fin flr—2x10 wd joist 16" o.c.—3" THERMAFIBER ins wool blkts betw joists—wallbd att with 6d nails 6" o.c.—joints fin clg wt 3	CK-6412-6 (s) CK-6412-5 (s)	(IIC) 32 58	41 40	clg matls 35	In CK-6412-5 test, 44-oz. carpet & 40-oz. pad added atop flooring	b-1451
PLASTERED ASSEMBLIES							
1 hr.	ROCKLATH Pl Base & Plaster—¾" cr chan 16" o.c. & BRACE-TITE Clips—¾" perf gypsum lath—⅝" STRUCTO-LITE plaster—2½" conc on riblath over bar joist clg wt 5	NBS 261 (f)	45 db est		clg matls 104	Good crack resistance, can reinforce plaster at re-entry angle	b-1460
1 hr.	½" IMPERIAL gypsum pl base Type X & veneer plaster ceiling—wd joist 2x10 16" o.c.—1" nom wd sub & fin flr—pl base att 5d nails 6" o.c.—⅛" IMPERIAL plaster—joints taped clg wt 3	UL Des 42-1 hr (f)	N/A		clg matls 27		a-1331
1 hr.	Resil ½" IMPERIAL gypsum pl base Type X & veneer plaster ceiling—wd joist 2x10 16" o.c.—1" nom wd sub & fin flr—RC-1 chan spaced 16" o.c. and at end joints—pl base att with Type S screws 12" o.c.—⅛" IMPERIAL plaster—joints taped clg wt 3	UL Des 41-1 hr (f)	N/A		clg matls 38		a-1331
1 hr.	⅝" IMPERIAL gypsum pl base Type X & veneer plaster ceiling—Amer Plywood Assn 2-4-1 flr 4x10 wd joist 48" o.c.—USG met fur chan spaced 24" o.c.—pl base att with 1" Type S screws—⅛" IMPERIAL plaster—joints taped clg wt 3	UL Des 28-1 hr (f)	N/A		clg matls 40	Only 1-hr. residential veneer plaster system based on 48" joist spacing	a-1331
1 hr.	⅝" IMPERIAL gypsum pl base Type X & veneer plaster ceiling—1" nom wd sub & fin flr—2x10 wd joists 16" o.c.—pl base att with 6d nails 6" o.c.—⅛" IMPERIAL plaster—joints taped clg wt 3	UL Des 1-1 hr (f)	N/A		clg matls 31		a-1331
1 hr.	Gypsum Lath & Plaster Ceiling—wd joist—1" nom wd sub & fin flr—¾" ROCKLATH FIRECODE—3" Striplath along joist—½" 100:2 gypsum sand plaster clg wt 6	FPRI No. 6 (f)	37 est		clg matls 40	Best method to attain 1-hr. rating—standard frame const	a-1360
1 hr.	Gypsum Lath & Plaster Ceiling—wd joist—1" nom wd sub & fin flr—¾" ROCKLATH FIRECODE—⅝" 100:2 gypsum perlite or STRUCTO-LITE plaster clg wt 5	T-2134-1 OSU (f)	N/A		clg matls 40	Constr. same as FPRI No. 6 except for Striplath & plaster	a-1360
1 hr.	Gypsum Lath & Plaster Ceiling—wd joist—1" nom wd sub & fin flr—¾" perf ROCKLATH—½" 100:2½ gypsum perlite plaster clg wt 7	GA-NBS-258 (f)	N/A		clg matls 39	Standard frame construction	a-1360
1 hr. est	Wd Joist—Resil Metal Lath & Plaster Ceiling—1" nom wd sub & fin flr—3.4# dm met lath att to ¼" pencil rod on #200 resil clips—⅝" 100:2-100:3 gypsum sand plaster clg wt 10	NBS-710 (s)	52		clg matls 68	Excellent sound isolation & crack resistance	a-1350
1 hr.	Wd Joist—Metal Lath & Plaster Ceiling—1" nom wd sub & fin flr—3.4# dm met lath att with 1½" nails 6" o.c.—⅝" 100:2-100:3 gypsum sand plaster clg wt 10	BMS-92 table 42 (f)	35 db est		clg matls 55		a-1350

b ceilings



fire rating	description	test no.	stc rating	relative cost index	comments	folder reference
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other ceiling assemblies

78	class 25 incomb.	ACOSTONE "F" 3/4"x12"x12" or 12"x24" min acoust tile	authority ASTM E84	29 est	clg mats	Basic concealed spline acoustical tile system	b-1551	f-1921
79	class 25 incomb.	ACOSTONE "F" 3/4"x12"x24" or 12"x36", min acoust tile on Exp Z-Spline Syst	authority ASTM E84	26 est	clg mats	Basic exposed spline system for accessibility	b-1551	f-1921
80	class 25 incomb.	AURATONE 3/4" or 3/4"x24"x24" or 24"x48" acoust clg panels in Susp Exposed Grid Syst	authority ASTM E84	40 to 44	clg mats	Basic incombustible lay-in acoust panels; NRC varies with pattern	b-1541	f-1921
81	class 25 incomb.	AURATONE 3/4"x24"x48" acoust clg panels in Susp Exp Grid Syst—contin over partn—1 1/2" THERMAFIBER sound atten blkts above clg	USG-210-FT-G&H (s)	44	clg mats	Test USG-211-FT with double-layer blankets extending 4" both sides of partition	b-1541	
82	N/A	ROCKLATH PI Base & Plaster—3/4" cr chan & BRACE-TITE Clips—3/4" gypsum lath—1/2" 100:2-100:2 1/2 gypsum sand plaster	USG-6-FT-G&H (s)	45 db	clg mats	Attenuation test—suspension & ceiling membrane only	b-1460	
83	N/A	Resil Gypsum Lath & Plaster Ceiling—wd joist—1" nom sub & fin fir—3/4" ROCKLATH appl with R-1 resil clips	NBS-709 F43 (s)	52	clg mats	Good resistance to air-borne sound; excellent crack resistance	a-1360	
84	N/A	3/4" SHEETROCK FIRECODE gypsum wallbd—1 1/2" cr chan 4" o.c.—USG met fur chan 24" o.c.—wallbd screw att 12" o.c.—joints fin	USG-5-FT-G&H (s)	45 db (9-f)	clg mats	"Up and over" atten-cig. membrane only	b-1491	
85	45 min.	1/2" SHEETROCK FIRECODE gypsum wallbd ceiling—1" nom wd sub & fin fir—2x10 wd joist 16" o.c.—wallbd att with 5d cem cld nails 6" o.c.—joints fin	UL Des 1-45 min (f)	36 (s)	clg mats	Basic 45-min. assembly—sound attenuation test	b-1451	

(See "Roof Assemblies" section below for ceiling of finished formboards available as part of integral roof system)

c roof assemblies

fire rating	description	test no.	relative cost index	comments	folder reference
1	2 hrs. (beam over 1/2" SHEETROCK formbd—Keydeck trussed tee—Keydeck reinf mesh slab wt 11 thickn 2 1/2"	UL Des RC-23-2 hr (f)	58	Thickn. includes formboard—protection of primary steel required, fire rating based on 8" max. beam spacing	c-1641
2	2 hrs. (beam over 1" FIRECODE formbd—Keydeck trussed tee—Keydeck reinf mesh slab wt 8 thickn 3"	UL Des RC-15-2 hr (f)	60	Thickn. includes formboard—protection of primary steel required	c-1641
3	2 hrs. PYROFIL Gypsum Concrete Roof Deck poured 2" min thickn over 1/2" SHEETROCK formbd—bulb or clip tee on bar joist—susp (1) AURATONE FIRECODE or (2) AIRSON acoust cig panels slab wt 11 thickn 2 1/2"	UL Des RC-6-2 hr (f)	100 (1) 120 (2) incl cig assembly	Thickn. includes formboard excluding ceiling—air control valves in AIRSON panels	c-1641 b-1541 b-1561
4	2 hrs. THERMOFIL Gypsum Concrete Roof Deck poured 2" min thickn over 1/2" SHEETROCK formbd—bulb tee on bar joist—susp (1) AURATONE FIRECODE or (2) AIRSON acoust cig tile slab wt 8.2 thickn 2 1/2"	UL Des RC-13-2 hr (f)	105 (1) 140 (2) incl cig assembly	Thickn. includes formboard excluding ceiling—air control valves in AIRSON tile	c-1641 b-1541 b-1561
5	2 hrs. USG Metal Edge Plank Roof Deck—MEP-7 precast—clipped on bar joists spaced 7'0" o.c.—3/4" incomb insul—3/4" AURATONE FIRECODE susp acoust cig panels slab wt 11.5 thickn 2 1/2"	UL Des RC-22-2 hr (f)	167	A good high-strength, long-span dry decking, simple to erect	c-1651
6	incomb. PYROFIL or THERMOFIL Gypsum Concrete poured over incomb formbd—rated incombustible by NBFU definition	SS-S-00118C fed spec	—	Thickness of fill 2" min.	c-1641

fire rating	description	test no.	relative cost index	folder reference
4-HOUR RATED APPLICATIONS				
4 hrs.	Gypsum Lath & Plaster Fireproof—2 layers 1/2" long length ROCKLATH pl	GA-NBS-278	(f)	D-1710
4 hrs.	Metal Lath & Plaster Fireproof—3.4# dm met lath fur 1/2" from face of col—1 1/2"	UL Des 3-4 hr	(f)	D-1700
4 hrs.	Metal Lath & Plaster Fireproof—3.4# dm met lath—3/4" cr chan spaced 24" o.c.	UL Des 7-4 hr	(f)	D-1700
4 hrs.	Metal Lath & Plaster Fireproof—3.4# dm met lath wrapped around col—1 3/4"	UL Des 6-4 hr	(f)	D-1700
4 hrs.	Gypsum Drywall Fireproof—2 layers 1/2" SHEETROCK FIRECODE "C" wallbd around 14 wt 228 col—wallbd screw att to col corners—met corner beads—joints fin	UL Des 48-4 hrs	(f)	D-1731
4 hrs.	PYROBAR Gypsum Tile & Drywall Fireproof—2" solid tile around col—tile banded 24" from ea end—contin met angles screw att to bands—1 layer 1/2" SHEETROCK FIRECODE "C" wallbd screw att to angles—met corner beads—joints fin	UL Des 31-4 hr (f) UL Des 34-4 hr (f)	165 163	D-1731 (based on 3" hol tile)
4 hrs.	PYROBAR Gypsum Tile & Plaster Fireproof—3" hollow—5% gypsum sand plaster—sanded basecoat & lime putty fin recom	BMS-92 table 40 (f)	172	D-1721
4 hrs.	PYROBAR Gypsum Tile & Plaster Fireproof—2" solid—5% 100:3 gypsum sand plaster	BMS-92 table 40 (f)	174	D-1721
4 hrs.	PYROBAR Gypsum Tile & Plaster Fireproof—2" solid—2" met band placed 24" from ea end—24-ga contin met angles screw att to bands—5% IMPERIAL pl base	UL Des 31-4 hr (f) UL Des 34-4 hr (f)	172 170	D-1721 (based on 3" hol tile)
3-HOUR RATED APPLICATIONS				
3 hrs.	Gypsum Lath & Plaster Fireproof—3/8" perf ROCKLATH pl base—1 1/2" 100:2 1/2"	GA-NBS-321	(f)	D-1710
3 hrs.	Gypsum Lath & Plaster Fireproof—3/8" perf ROCKLATH pl base—2" 100:2:100:3	GA-NBS-344	(f)	D-1710
3 hrs.	Metal Lath & Plaster Fireproof—3.4# sf dm met lath wrapped around col—1 1/2"	UL Des 6-3 hr	(f)	D-1700
3 hrs.	Gypsum Drywall Fireproof—3 layers 1/2" SHEETROCK FIRECODE "C" wallbd around col—triple layer over ea flange end—inner layers on flange face separ by #158 met studs & screw att—met beads on corners—joints fin	UL Des 41-3 hr	(f)	D-1731
3 hrs.	Gypsum Drywall Fireproof—1/2" SHEETROCK FIRECODE "C" wallbd around 14 wt 228 col—double layer over ea web face—wallbd screw att to #158 met studs at col corners—met corner beads—joints fin	UL Des 40-3 hrs	(f)	D-1731
3 hrs.	Gypsum Lath & Veneer Plaster Fireproof—3 layers 5/8" IMPERIAL pl base Type X around col—base & second layers att by met corner beads & horiz double tie wires—2nd & 3rd layers lamin & screw att to beads—1/6" IMPERIAL plaster	UL Des 14-3 hr	(f)	D-1710
2-HOUR RATED APPLICATIONS				
2 hrs.	Gypsum Lath & Plaster Fireproof—3/8" perf ROCKLATH pl base—1 1/2" 100:2-	GA-NBS-351	(f)	D-1710
2 hrs.	Metal Lath & Plaster Fireproof—3.4# sf met lath wrapped around col—1" 100:2-	UL Des 2-2 hr	(f)	D-1700
2 hrs.	Gypsum Lath & Veneer Plaster Fireproof—1/2" IMPERIAL pl base Type X around 14 wt 228 col—pl base screw att to #158 met studs at col corners—met corner beads—1/6" IMPERIAL plaster	UL Des 23-2 hr	(f)	D-1710
2 hrs.	Gypsum Drywall Fireproof—1/2" SHEETROCK FIRECODE "C" wallbd around col—double layer over ea flange end—double layer on flange faces separ by USG	UL Des 10-2 hr	(f)	D-1731
2 hrs.	Gypsum Drywall Fireproof—1/2" SHEETROCK FIRECODE "C" wallbd around 14 wt 228 col—wallbd screw att to #158 met studs at col corners—met corner beads—joints fin	UL Des 23-2 hr	(f)	D-1731
2 hrs.	PYROBAR Gypsum Tile Fireproof—3" hollow—unplastered	wt 11	(f)	D-1721
2 hrs.	PYROBAR Gypsum Tile Fireproof—2" solid—unplastered	wt 11	(f)	D-1721
1-HOUR RATED APPLICATIONS				
1 hr.	Gypsum Lath & Plaster Fireproof—3/8" perf ROCKLATH pl base—1/2" 100:2 1/2"	GA-NBS-273	(f)	D-1710
1 hr.	Metal Lath & Plaster Fireproof—3.4# dm met lath wrapped around col—3/4"	BMS-92 table 40 (f)	76	D-1710
beam fireproofing				
4 hrs.	Metal Lath & Plaster Caged Beam Fireproof—3.4# sf dm met lath enclosing beam—1 1/2" 100:2 gypsum perlite plaster UL 40 U18.16	UL Des 8-4 hr (f)	99	b-1480
3 hrs.	Gypsum Lath and Veneer Plaster Caged Beam Fireproof—1 1/2" USG met run chan brackets 24" o.c.—1/2" x 1 1/2" corner angles att to chan brackets—3 layers IMPERIAL pl base Type X att with Type S screws—1" 20-ga. hex mesh on bottom over middle layer—met beads on corners—joints taped—1/6" IMPERIAL plaster—2 1/2" conc deck on fluted stil fir	UL Des 214-3 hr (f)	93	b-1471
3 hrs.	Metal Lath & Plaster Caged Beam Fireproof—9-ga galv wire wrapped around beam sum plaster UL 40 U18.3 (Type S)	UL Des 10-2 hr (f)	84	b-1480

d structural fireproofing

fire rating	description	test no.	relative cost index	folder reference
beam fireproofing (continued)				
28 3 hrs. (beam only)	Gypsum Drywall Caged Beam Fireprfg—1½" USG met run chan brackets 24" o.c.—1½" x ½" corner angles att to brackets—3 layers ½" SHEETROCK FIRECODE gypsum wallbd att with Type S screws—1" 20-ga hex mesh on bottom over middle layer—met beads on corners—joints fin—2½" conc deck on fluted stl flr	UL Des 214-3 hr (f)	98	b-1491
29 2 hrs. (beam only)	Gypsum Drywall Caged Beam Fireprfg—1½" USG met run chan brackets 24" o.c.—1½" x ½" corner angles att to chan brackets—dbl layer ½" SHEETROCK FIRECODE gypsum wallbd att with Type S screws—met beads on corners—joints fin—2½" conc deck on fluted stl flr	UL Des 254-2 hr (f) UL Des 255-2 hr (f)	91	b-1491

(See Ceiling System Folders Nos. b-1471, b-1480, b-1491, b-1541, b-1551, b-1561, b-1601 for protection of beams, girders, and trusses by ceiling constructions)

e exterior walls & furring

	description	relative cost index	comments	folder reference
1	1" USG Gypsum Coreboard set in metal angle floor and ceiling runners, ½" SHEETROCK wallboard laminated to coreboard, U.S.G. Joint Treatment	75	Free standing; allows for pipe chase clearance; minimizes shadowing and spotting	a-1070
2	USG Metal Furring Channels 24" o.c., ½" Insulating SHEETROCK screw attached, U.S.G. Joint Treatment	82	Direct attachment by furring does not isolate surface from structural stresses. No limiting height	e-1771
3	Either ¾" or 1" (2) polystyrene or (2) urethane rigid foam insulation—USG Z-Furring Channels appl vert 24" o.c.—½" SHEETROCK wallboard screw attached to channels, U.S.G. Joint Treatment	(1) 83 (2) 93	Surface membrane isolated from masonry. Alternate interior: ½" IMPERIAL plaster base and ¼" IMPERIAL veneer plaster finish; see a-1141	e-1781 a-1141
4	TRUSSTEEL Studs 24" o.c.—RC-1 chan spaced 16" o.c. att with ¾" Type T screws—insul pl base att with 1" Type S screws—¼" IMPERIAL plaster—joints taped	85	Free standing; allows pipe chase clearance; good vapor barrier	a-1151
5	USG Metal Furring Channels 16" o.c., ½" Insulating IMPERIAL pl base screw att, ¼" IMPERIAL pl finish	94	May be attached direct or additionally furred out on ¾" horiz. C. R. channels; good vapor barrier	a-1141
6	Wood furring strips 16" o.c., ½" Insulating SHEETROCK*, U.S.G. Joint Treatment	100	Surface not isolated from structural stresses; good vapor barrier	a-1391
7	RC-1 Furring Channels 24" o.c., ½" Insulating SHEETROCK screw attached, U.S.G. Joint Treatment	101	RC-1 channel reduces transfer of structural stresses to surface membrane	a-1401
8	Wood furring strips 16" o.c., Insulating ROCKLATH*, ½" sanded basecoat plaster, lime putty finish	138	Does not isolate surface membrane from structural stresses	a-1360
9	USG Metal Furring Channels 24" o.c., ¾" Insulating ROCKLATH screw attached, ½" sanded basecoat plaster, lime putty finish	140	Does not isolate surface from structural stresses. No limiting height	a-1191
10	R-5 Resilient Clips 16" o.c., Insulating ROCKLATH and BRIDJOINT* Clips, ½" sanded basecoat, lime putty	141	Resiliency of the R-5 Clip will reduce the transfer of structural stresses to surface membrane	a-1161
11	3½" USG Metal Studs 24" o.c., ½" Insulating SHEETROCK, U.S.G. Joint Treatment	155	Free standing; allows for pipe chase clearance; 9' limiting height; good vapor barrier	a-1201
12	Either 1½" (1) polystyrene or (2) urethane rigid foam insulation, bonded to masonry wall—½" SHEETROCK bonded to rigid foam—U.S.G. Joint Treatment	(1) 164-167 (2) 173	Excellent insulation and moisture barrier. No pipe chase capacity. Alternate interior: ½" IMPERIAL plaster base and ¼" IMPERIAL veneer plaster finish; see a-1141	e-1781 a-1141
13	3½" USG Metal Studs 16" o.c., ¾" Insul. ROCKLATH screw attached, ½" basecoat plaster, lime putty finish	175	Free standing furring; allows for pipe chase clearance; 9' limiting height; good vapor barrier	a-1191
14	TRUSSTEEL* Studs 16" o.c. cross braced 4' o.c. on back chord, ¾" Insulating ROCKLATH attached with TL-1 Clips, ½" sanded basecoat plaster, lime putty finish	185	Free standing; allows for pipe chase clearance; good vapor barrier	a-1181
15	¾" C. R. Channels 16" o.c., cross braced, ¾" Insulating ROCKLATH and BRACE-TITE* Clips, ½" sanded basecoat plaster, lime putty finish	185	Isolation adequate; good vapor barrier	a-1031
16	¾" C. R. Channels 16" o.c., cross braced, 3.4# dm metal lath, ¾" sanded basecoat plaster, lime putty finish	203	No vapor barrier; isolation adequate	a-1031
17	¾" Long Length Insulating ROCKLATH, supported by ¾" horizontal channels 36" o.c., ¾" sanded basecoat plaster, lime putty finish	203	Limited to 12' ceiling height. Control joints should be used 20' o.c.	a-1031
18	TRUSSTEEL Studs 16" o.c. cross braced 4' o.c. on back chord, 3.4# diamond mesh metal lath, ¾" sanded basecoat plaster, lime putty finish	203	Free standing; allows for pipe chase clearance; no vapor barrier	a-1171
19	ARMORWEAVE Expanded Metal Fascia Walls	—	Mesh grid for sunshading or screening exterior walls	is-141
20	USG Exterior Curtain Walls	—	Masonry or stucco exterior, drywall or plaster interior. Assemblies offer up to 4-hour fire resistance	e-1821

title	folder reference
Gypsum Plasters	f-1851
Basecoat, finish coat, high-strength veneer, gauging, ornamental, acoustical, and special plasters; finishing limes; general plastering specs.	
Plaster Bases & Accessories	f-1861
Gypsum and metal lath; gypsum partition tile; corner and casing beads, screeds, metal and plastic trim, control joints, clips, runners, metal base, metal studs, furring channels, brackets, partition terminals; general lathing specs.	
Gypsum Wallboard & Accessories	f-1871
Wallboards, coreboard, studs and ribs, backing boards; corner beads, metal and plastic trim, moldings, channel, runners, brackets, control joint; screws and adhesives; erection specs for board, accessories and joint treatment.	
Drywall Joint Treatment Products	f-1881
Reinforcing tape, joint compounds, laminating adhesives; application specs.	
Sheathing Products	f-1891
Gypsum sheathing; wood fiber insulating sheathing; attachment specs.	
Insulating Wool Products	f-1901
Insulating and sound attenuation blankets; perimeter insulation; blowing and pouring wool; Installed Resistance ratings; application specs.	

title	folder reference
Paint Products	f-1911
Interior flats, enamels; exterior and floor paints; masonry coatings; stains, varnishes; texture finishes; sealers, primers, undercoat, block filler; epoxy and metal coatings; industrial finishes; preparation and application specs.	
Sound Control Products	f-1921
Mineral tile and panels; air distribution system components; acoustical space units; wood fiber tile; metal pan ceiling units; asbestos ceiling board; metal accessories; material and installation specs.	
Asphalt Roofing Products	f-1931
235-lb. to 300-lb. strip and specialty shingles; self-sealing shingles; descriptions of 26 built-up roofing assemblies (West only); UL label classifications; inspection and installation specs.	
Limes for Masonry Mortars	f-1940
Air entraining and mason's lime; hydrated lime; mason's quicklime; proportioning and workmanship specs.	
CONCORDE Shingles	f-1961
Mineral shingles for mansard roofs and sidewalls; application specs.	

U. S. G. products—specification standards

The listings below contain existing Standard Specifications, classified as Federal, Army, Navy, Treasury, etc., which apply to U.S.G. materials. Where ASTM, local codes, etc. require product variance, consult your U.S.G. representative. The symbol "WC" after a product listing denotes that U.S.G. is on the government list of those companies willing to certify that their products meet that specification. See pertinent U.S.G. Product Catalog for additional information.

PRODUCT	FEDERAL SPECIFICATION	ASTM DESIGNATION
PLASTER		
RED TOP* gypsum plaster (WC)	SS-P-00402a type II	C28—gypsum neat plaster
RED TOP two-purpose plaster	SS-P-00402a type II	C28—gypsum neat plaster
RED TOP wood fiber plaster (WC)	SS-P-00402a type III	C28—gypsum wood fiber
STRUCTO-LITE* plaster	SS-P-00402a type I	C28—gypsum ready mix plaster
perlite aggregate	non-applicable	C35
RED TOP gauging plaster (WC)	SS-P-00402a type V	C28—gypsum gauging for finish coat
RED TOP molding plaster	SS-P-00402a type V	C28—gypsum gauging for finish coat
RED TOP keenes cement regular (WC) quick trowel	SS-P-00410 type I SS-P-00410 type II	C61 C61
STRUCTO-GAUGE* plaster	SS-P-00402a type V with added req. of dry compressive strength not less than 5000 psi (neat)	C28—gypsum gauging for finish coat
STRUCTO-BASE* plaster	SS-P-00402a type II with added req. of dry compressive strength not less than 2800 psi.	C28—gypsum neat plaster
HI-LITE* acoustical plaster-stippled & stippled-perforated	SS-S-111 type I & II NRC grade 4 sound absorption grade 105 class not determined	
AUDICOTE* acoustical plaster	SS-S-111 type I & II NRC grade 5 sound absorption grade 105 class not determined	
IMPERIAL* plaster	non-applicable	C-587—gypsum veneer plaster
PYROBAR* partition tile		
(WC)	SS-T-00316a	C52

PRODUCT	FEDERAL SPECIFICATION	ASTM DESIGNATION
LIME		
RED TOP and GRAND PRIZE* finish lime	SS-L-00351a type F (including added requirement of not more than 8% unhydrated oxides)	C6 type N
IVORY* finish lime		C206 type S
RED TOP masons hydrate	SS-L-00351a type M (including added requirement of not more than 8% unhydrated oxides)	C207 type N
MORTASEAL* masons lime		C207 type S
RED TOP and CHESHIRE quicklime	SS-Q-351 type C	C5
RED TOP quicklime	SS-Q-351 type M	C5
METAL LATHING		
Bases, metal: (for) plaster, lath and stucco constr. (WC) 3.4# galv. diamond mesh lath, 2.5# and 3.4# c.a. ptd.; 1/4" 4-mesh z-rib lath 2.75# and 3.4#; 3/8" rib lath 3.4# and 4.0#	QQ-L-101a type F (flat dia. mesh) type SF (self furring dia. mesh) type FR (1/4" flat rib) type F3/8" (3/8" rib)	non-applicable
hanger wire—tie wire	QQ-W-461 f finish 5 class 1 (1006 type steel)	
GYPSUM LATHING		
ROCKLATH* plaster base—1/2" & 3/4"	SS-L-30c type I, grades R and X, class 1, forms (a) (b) and (c), styles 1 and 5	C37
IMPERIAL* plaster base—1/2" & 3/4"	SS-L-30c type I, grades R and X, class 1, style 1	C588
USG R.H. base—1/2" & 3/4"	SS-L-30c type I, grades R and X, class 1, style 1 (in type III size)	

(continued)

U.S.G. products—specification standards (continued)

PRODUCT	FEDERAL SPECIFICATION	ASTM DESIGNATION
SHEETROCK* gypsum wallboard		
(plain) (insulating)	SS-L-30c	C36
square edge (WC)	type III grade R class 1	C36
tapered edge (WC)	type III grade R class 1	C36
bevel edge (WC)	type III grade R class 1	C36
½" FIRECODE*	type III grade X class 1	C36
½" & ¾" FIRECODE "C"	type III grade X class 1	C36
TEXTONE* vinyl covered	type III grade R or X cl. 3	C36
BAXBORD* backing board	type IV grade R or X cl. 1	C442
W/R water-resistant	—	C630

SHEATHING

FIRECODE* gypsum sheathing	SS-L-30c type II grade W cl. 2	C79
USG wood fiber insulating sheathing	LLL-I-535a class e	C208 class e

JOINT TREATMENT

USG, PERF-A-TAPE* & DURABOND* joint compounds	SS-J-570a type I	C474 & C475
PERF-A-TAPE reinf. tape	SS-J-570a type II	
Compound & tape combined	SS-J-570a type III	

DRYWALL ACCESSORIES

USG electro-galv. studs and runners, furring channels, RC-1 resilient channels	QQS-698	C645
USG hot-dipped studs and runners, furring channels, RC-1 resilient channels	QQS-775d	A525
Metal corner beads and trim	QQS-775d class E	A525
USG brand screws	—	C646
DURABOND Adhesive 200, 300	—	C557

ACOUSTICAL UNITS—PREFABRICATED

ACOUSTONE* "F" MOTIF*D* ACOUSTONE AIRSON* ACOUSTONE AURATONE*	SS-S-00118 (GSA-FSS) type III class 25	E-84-61T
PERFATONE*	SS-S-00118 (GSA-FSS) type V class 25	E-84-61T
AUDITONE*	SS-S-00118 (GSA-FSS) type I class 200 & 75	

METAL GRATING

GRATE-X* grating 3.0-3.14-4.0-4.27#	MIL-G-18015s & MIL-M-17194c	non-applicable
GRIP STRUT* grating selected styles	RR-G-661b type III MIL-G-18015s types I, II, III, IV	non-applicable

PRODUCT	FEDERAL SPECIFICATION	ASTM DESIGNATION
MINERAL FIBER INSULATION		
THERMAFIBER* open face batt (membrane facing one side) blanket batt (with enveloping membranes) blowing wool pouring wool sound attenuation blanket	HH-I-521D type I, II, III HH-I-521D type I, II, III HH-I-1030 type I cl. A HH-I-1030 type II cl. A HH-I-521D type I, II, III	none none none none none
USG perimeter insulation	HH-I-542 type II HH-I-562 type I cl. 2 HH-I-563 type II cl. D HH-I-564 class A & B form 1 & 2	C378 non-load bearing C392 class I

INSULATION BOARDS

USG sound deadening board wood fiber mineral fiber	LLL-I-535a class a	C208 class A non-comb. class A
USG roof insulation	LLL-I-535a class c	C208 class C

ROOFING

FORTIFIED* 300, Square Butt, Giant Strip shingles	SS-S-001534 type II	D225 type II
SEALCO* shingles	SS-S-001534 type I	D225 type I
FIRECODE* A-25 shingles	SS-S-001534	
USG asphalt sat. felts	HH-R-595 type II cl. I & II	D226
USG asbestos felt	HH-R-590 type I class A	D250
ADAMANT* cap roll roofing	SS-R-630D	D249
SEL-VI-LAP* roll roofing	SS-R-630D	D371
IMPERIAL* roll roofing	SS-R-501a class B	D244
SUPER-TITE* roofing asphalt standard grade	SS-A-666b type IIA	D312 type II

PRODUCT	FEDERAL SPECIFICATION	ASTM DESIGNATION	OTHER NATIONAL
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GYPSUM ROOF DECKS

PYROFILL* gypsum fiber concrete	(C.E. 219)	C317 material	ANSI A59-1
SHEETROCK formboards	SS-L-30c type V	C318 material	—
USG insulation formboards	LLL-I-535a	C208 class A	
USG min. fiber formboards	SS-S-118a cl. 25	—	—
USG acoustical formboard	SS-A-118b type IIb cl. 200		
USG ¼" asbestos formboard sheets, flat	SS-B-755 type u only	—	—
USG 2" metal edge gypsum plank—precast	SS-T-315a type I	C377 type 2	—

*Reg. U.S. Pat. Off.

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